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**ABSTRACT**

This report prepared by the Policy Analysis and Legislation Staff of the Office of Vocational and Adult Education, for the Congress, discusses the status of vocational education using statistical information, state evaluations, and audits, and reports compliance and quality of vocational education programs in selected states. The general provisions of state vocational programs, their basic grant structure, and a review of state program improvement and supportive services are provided. In addition, the states' programs for the disadvantaged and for consumer and homemaking education are reviewed. Presented next are the general provisions of national vocational programs along with an overview of programs of national significance, bilingual vocational training, and the emergency assistance program for remodeling and renovation of vocational education facilities. Then a discussion of the Appalachian Regional Development Commission (ARDC) is provided. Twenty enrollment tables and 12 funding tables are appended. It is reported that total enrollment in vocational education at all levels reached a record of 17 million with expenditures at $6.5 billion in fiscal year 1979. (BPB)

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# VOCATIONAL EDUCATION

## Report by the Secretary of Education to the Congress

1980

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THE SECRETARY OF EDUCATION
WASHINGTON, D.C. 20202

TO THE CONGRESS OF THE UNITED STATES:

As Secretary of Education, it is my privilege to submit this report on the status of vocational education for fiscal year 1980.

This report was prepared by the Office of Vocational and Adult Education, and is transmitted according to the requirements of the Vocational Education Act of 1963, as amended by Title II of the Education Amendments of 1976.

Respectfully yours,

T. H. Bell

June 1981

# FOREWORD

This report on the status of vocational education is prepared pursuant to Public Law 94-482, the Education Amendments of 1976. The report includes final statistical information for fiscal year 1979 from the mandated national vocational education reporting and accounting system, implemented as the Vocational Education Data System (VEDS). Data not included in VEDS but available from other sources are for fiscal year 1980.

The report discusses State evaluations, audits, and compliance and quality of vocational education programs in selected States. The materials in this report are presented in the order they appear in the legislation. This arrangement should facilitate cross-referencing with the law.

This document was prepared by the Policy Analysis and Legislation Staff of the Office of Vocational and Adult Education (OVAE), U.S. Department of Education, in cooperation with other units of OVAE. We also gratefully acknowledge the contributions of the National Center for Education Statistics, U.S. Department of Education.

Robert M. Worthington
Assistant Secretary
for Vocational and Adult Education

June 1981

# SUMMARY

This report describes the status of vocational education in fiscal year 1980. It is arranged according to the subparts and sections of the Vocational Education Act of 1963, as amended by the Education Amendments of 1976, Public Law 94-482, Title II. The sections cited in each part of the report refer to this law.

The fiscal year 1979 data included in this report were collected by the National Center for Education Statistics, Vocational Education Data System (VEDS), and are the most recent available. Fiscal year 1979 was the first year during which VEDS was fully operational; data for prior years were collected by the Office of Education. Because data collection methodologies have changed, data presented in this report may at times appear to be anomalous. In some instances, therefore, data will show large changes in enrollments or expenditures. Such changes may be attributable to the varying data collection methods in the 2 years being compared, rather than to actual changes in enrollments or funding.

Total enrollment in vocational education at all levels reached a record 17,033,620 in fiscal year 1979. Approximately 51 percent of these students were female. Enrollments have been increasing steadily from the 11,602,144 total in fiscal year 1972. Total expenditures have also increased from $2.7 billion in 1972 to $6.5 billion in 1979. In terms of constant 1978 dollars, however, the increase in expenditures is not quite so dramatic: $4.1 billion in 1972 compared to $6.0 billion in 1979. Federal expenditures increased from $466 million in 1972 to $565 million in 1979. In constant 1978 dollars, however, Federal expenditures actually declined from $709 million in 1972 to $522 million in 1979. These figures illustrate the effect of inflation on education dollars.

Although placement rates for fiscal year 1979 are not yet available, the 1978 rates are typical for vocational education's performance. Of all those persons available for placement in 1978, 66.4 percent were employed full time in the field for which they had been trained or in a closely related field. Another 25.4 percent were employed in a field not related to their training, or were employed part time. A full 91.8 percent of those available for placement obtained employment in 1978.

Vocational education, through its many programs, services, and activities, trains the Nation's youth for work, while emphasizing equal educational opportunity for males and females, the disadvantaged, handicapped, and students with limited English proficiency. Vocational education also retrains and upgrades adult workers to keep abreast of the changing needs of business and industry, and continues to make significant contributions toward achieving national goals of productivity and economic development.

# CONTENTS

PAGE

LETTER OF TRANSMITTAL . . . . . . . . . . . . . . . . . . . . . . . . iii

FOREWORD . . . . . . . . . . . . . . . . . . . . . . . . . . . . . v

SUMMARY. . . . . . . . . . . . . . . . . . . . . . . . . . . . . vii

STATE VOCATIONAL PROGRAMS

SUBPART 1. GENERAL PROVISIONS

Program for Indian Tribes and Indian Organizations . . . . 3
State and Local Administration . . . . . . . . . . . . . . 6
State Planning and Evaluation . . . . . . . . . . . . . . . 7
State Administration--Full-time Sex Equity Personnel . . . 8
Office for Civil Rights--Guidelines for Vocational Education . . . . . . . . . . . . . . . . . . . . . . . 12
State Advisory Councils . . . . . . . . . . . . . . . . . . 15
Local Advisory Councils . . . . . . . . . . . . . . . . . . 16
CETA and Vocational Education Coordination . . . . . . . . 17
National Priority Program--Handicapped . . . . . . . . . . 19
National Priority Program--Disadvantaged . . . . . . . . . 22
National Priority Program--Limited English Proficiency . . 24
National Priority Program--Postsecondary and Adult . . . . 25
Management Evaluation and Review for Compliance/Quality . . 27
Vocational Education Audits . . . . . . . . . . . . . . . . 32
State Evaluation Results . . . . . . . . . . . . . . . . . 33

SUBPART 2. BASIC GRANT

Vocational Education Programs . . . . . . . . . . . . . . . 37
Vocational Student Organizations . . . . . . . . . . . . . 44
Work-Study Programs . . . . . . . . . . . . . . . . . . . . 45
Work Experience and Career Exploration Program . . . . . . 47
Cooperative Vocational Education Programs . . . . . . . . . 48
Energy Education Programs . . . . . . . . . . . . . . . . . 50
Construction of Area Vocational Schools . . . . . . . . . . 51
Stipends . . . . . . . . . . . . . . . . . . . . . . . . . 52
Placement Services . . . . . . . . . . . . . . . . . . . . 52
Industrial Arts . . . . . . . . . . . . . . . . . . . . . . 53
Support Services for Women . . . . . . . . . . . . . . . . 53
Day Care Services . . . . . . . . . . . . . . . . . . . . . 54
Displaced Homemaker Programs . . . . . . . . . . . . . . . 55
Residential Vocational Schools . . . . . . . . . . . . . . 56
Contracting for Vocational Education . . . . . . . . . . . 56

PAGE

SUBPART 3. PROGRAM IMPROVEMENT AND SUPPORTIVE SERVICES

Research . . . . . . . . . . . . . . . . . . . . . . . . . 66
Exemplary and Innovative Programs . . . . . . . . . . . . . 66
Curriculum Development . . . . . . . . . . . . . . . . . . 67
Guidance and Counseling . . . . . . . . . . . . . . . . . . 67
Preservice and Inservice Training . . . . . . . . . . . . . 69
Grants to Overcome Sex Bias . . . . . . . . . . . . . . . . 71

SUBPART 4. SPECIAL PROGRAMS FOR THE DISADVANTAGED

Special Programs for the Disadvantaged . . . . . . . . . . . 75

SUBPART 5. CONSUMER AND HOMEMAKING EDUCATION

Consumer and Homemaking . . . . . . . . . . . . . . . . . . 79

NATIONAL VOCATIONAL PROGRAMS

SUBPART 1. GENERAL PROVISIONS

National Occupational Information Coordinating Committee . . . . . . . . . . . . . . . . . . . . . . . . 83
State Occupational Information Coordinating Committees . . . . . . . . . . . . . . . . . . . . . . . 84
National Advisory Council on Vocational Education . . . . . 86

SUBPART 2. PROGRAMS OF NATIONAL SIGNIFICANCE

National Center for Research in Vocational Education . . . . . . . . . . . . . . . . . . . . . . . . 90
Curriculum Coordination Centers . . . . . . . . . . . . . . 93
Projects of National Significance . . . . . . . . . . . . . 94
Training and Personnel Development . . . . . . . . . . . . 103
Coordinating Committee for Research in Vocational Education . . . . . . . . . . . . . . . . . . . . . . . . 104
Adaptation of Armed Services' Curricula for Civilian Use . . . . . . . . . . . . . . . . . . . . . . . 104

SUBPART 3. BILINGUAL VOCATIONAL TRAINING

Bilingual Vocational Training . . . . . . . . . . . . . . . 109

PAGE

SUBPART 4. EMERGENCY ASSISTANCE FOR REMODELING AND RENOVATION OF VOCATIONAL EDUCATION FACILITIES

Emergency Assistance for Remodeling and Renovation of Vocational Education Facilities . . . . . . . . . . . . 113

APPALACHIAN REGIONAL DEVELOPMENT COMMISSION PROGRAM

Appalachian Regional Development Commission Program . . . . 117

APPENDIXES

1. Enrollment Tables (E-1 - E-20) . . . . . . . . . . . . . . 121
2. Funding Tables (F-1 - F-12) . . . . . . . . . . . . . . . . 167

# STATE VOCATIONAL PROGRAMS

## SUBPART 1. GENERAL PROVISIONS

## Introduction

Subpart 1 sets forth the authorizations for each subpart of the Vocational Education Act, as amended in 1976. Subpart 1 also lists the general requirements which States must meet in order to receive funds. These requirements include State administration, full-time sex equity personnel, State and local advisory councils, national priority programs, audits, State evaluations, and other similar provisions which are discussed in this section of the report.

Actual authorizations of funds available to the States (including the Smith-Hughes permanent appropriation but excluding funds reserved for special set-asides) in fiscal year 1979 for each subpart were: Section 120, $430,671,966; Section 130, $107,667,991; Section 140, $19,968,469; and Section 150, $40,929,371. The total was $599,237,797.

Expenditures in fiscal year 1979 for all subparts (including carryover funds) totaled approximately $6.479 billion, with Federal funds amounting to almost $565 million, or 8.7 percent. Chart A shows the steady increase in vocational education expenditures since 1972. Chart B shows expenditures in constant 1978 dollars. While total expenditures are still increasing somewhat, Federal expenditures are actually decreasing in terms of constant dollars or buying power.

## PROGRAM FOR INDIAN TRIBES AND INDIAN ORGANIZATIONS

The program for Indian Tribes and Indian Organizations is funded through a set-aside appropriation in Section 103(a)(1). Congress directed the Bureau of Indian Affairs (BIA) in the Technical Amendments (Public Law 95-40) to match funds for this program, but the BIA has not done so. The program is thus funded at only 50 percent of its intended level. Of the more than 250 federally recognized tribes and tribal organizations, only 33 have received funds to develop vocational programs. The funds that are reserved provide discretionary grants for these tribal organizations to design, implement, and administer broadly defined vocational education programs. Tribal organizations direct extensive programs which include occupational skills training, career counseling, needs assessment, program planning, curriculum development, professional training, community seminars, and construction of vocational facilities.

Since the program began in fiscal year 1978, a total of 8,667 persons have been served. In fiscal year 1979 approximately $5.4 million were used to fund 30 projects which served 3,867 students. The projects included occupational skill training in management, agriculture, auto

**Expenditures**

## For Vocational Education (VEA)
## By Source of Funds

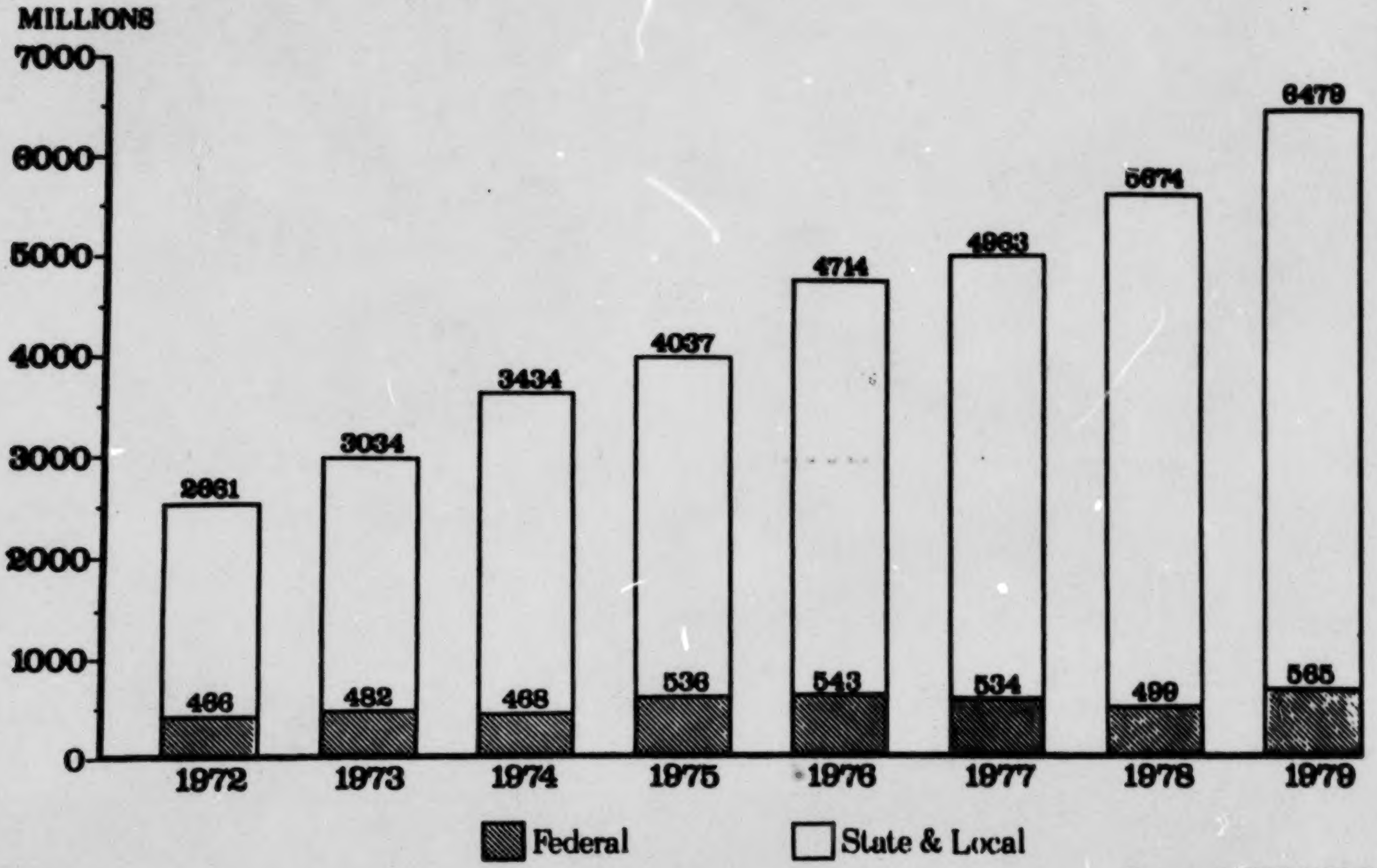

Chart A

Source: NCES/VEDS FY-'79

**Expenditures**

For Vocational Education (VEA)
By Source of Funds
In Constant 1978 Dollars

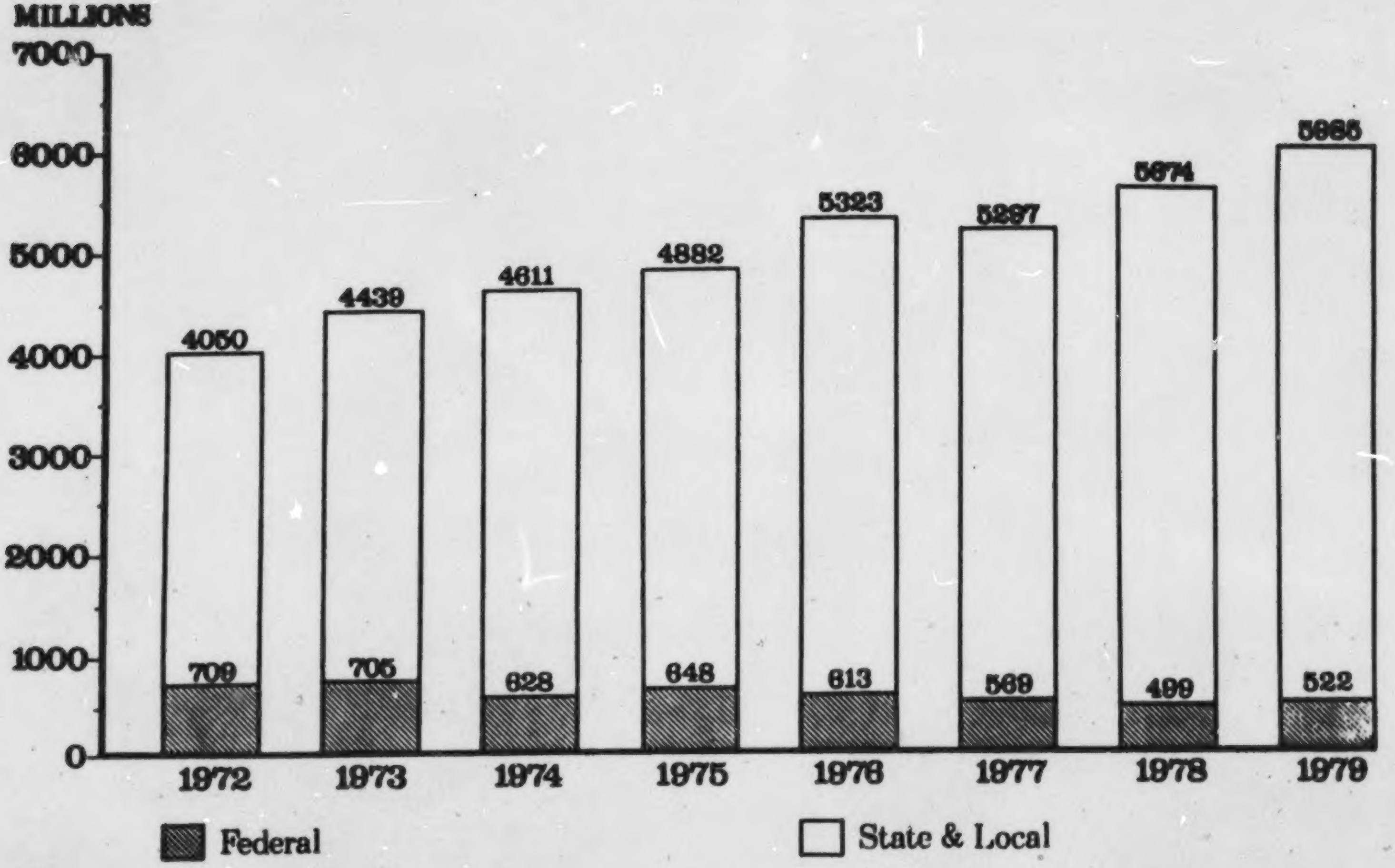

Chart B

Source: NCES/VEDS FY-'79

and diesel repair, the construction trades, and career awareness and guidance services.

There is a need in some tribes to link the vocational programs with the Tribal Economic Development Plan. These plans attempt to make the tribes self-sufficient by employing adults in business and industry both on and off the reservations. The vocational programs and the Economic Development Plan can work together to improve the overall economy of the tribe. This is an area which will be addressed next year.

## STATE AND LOCAL ADMINISTRATION

In fiscal year 1979, each State was permitted by Section 111 to use Federal funds from the Basic Grant (Section 120) and from Program Improvement (Section 130) to pay up to 60 percent of the cost of administering its annual vocational education plan. Expenditures from both Sections totaled $95,803,827 (State and local $51,581,357 and Federal $44,222,470). This was an increase from the 1978 total of $82,643,126. Most States used a substantial portion of these funds to pay the salaries of State vocational education staff who conducted vocational education planning, administration, technical assistance, evaluation, data collection, dissemination, or program improvement activities. Funds were also used for salaries of staff who were State leaders in the various occupational program areas.

State administration funds which were used for vocational education planning covered a variety of activities. Several States examined and updated, or developed new policies and procedures for assessing the relevancy of existing vocational education programs. Studies were conducted in a number of States to determine new and emerging occupations. Efforts were also made to revise research and curriculum development priorities to insure that program improvement projects remained responsive to vocational education needs.

Technical assistance activities supported by State administration funds generally focused on ways to improve vocational education programs and support services. State staff assisted local educational agencies in developing their local applications and in implementing effective cost accounting and reporting systems. Local educational agencies also received suggestions on how to use their local advisory councils effectively. Professional development for local vocational education personnel was promoted by State staff. Other State technical assistance efforts were directed toward improving cooperation between vocational education and business and industry at the local level.

Data collection, evaluation, and dissemination activities were often supported with State administration funds. Data collection activities were geared, for the most part, toward obtaining data needed for Federal reporting requirements, program evaluation, and State and local planning (management information systems). Program evaluation efforts, at the State level, centered mainly upon the overall coordination of the evaluation process. This included formulating evaluation procedures and criteria, and scheduling and conducting evaluations. Local educational agencies received technical assistance on how to prepare for evaluations and how to use evaluation results to improve their programs. State dissemination activities involved giving local educational agencies data and evaluation results for local planning and improving local programs. The general public received information on vocational education programs, activities, and accomplishments through publications, newsletters, and the media.

State administration funds have enhanced the quality of vocational education programs. Improved evaluation procedures and data collection methods have provided planners with better data to update and revise programs. State and local planners are thus making more informed judgments as to which instructional programs are relevant to current employment needs. Technical assistance and dissemination activities completed the program improvement process by providing information and assistance to local planners who improved their individual vocational education programs to better meet the needs of both students and employers.

Local administration monies were used almost exclusively for the salaries of staff who directly administered and supervised local vocational education programs. There were, however, several instances in which local administration funds were used for job development, student followup, evaluation, data collection, and inservice training for local administrative staff. Expenditures in fiscal year 1979 from Sections 120 and 130 totaled $262,076,379 (State and local $253,713,034 and Federal $8,363,345). This was a significant increase from the 1978 total of $168,212,114.

## STATE PLANNING AND EVALUATION

Section 102(d) permits each State to use planning funds to pay up to 100 percent of the cost of preparing its annual program plan and accountability report (including the collection of necessary data). Planning funds may also be used to pay up to 100 percent of the cost of evaluations of programs that are assisted with funds under the Act. In fiscal year 1979, approximately $5 million was appropriated to be expended for these purposes in fiscal year 1980. This was the first year that these funds were made available to the States.

Section 102(d) planning funds were used primarily to improve the data collection systems of various States. Several States upgraded their management information systems by obtaining more accurate and complete data on labor supply and demand, target groups, training opportunities, enrollments, and vocational education needs. Efforts were also made to obtain more useful data at the regional, county, or local level. Improvements in management information systems were often combined with technical assistance to local educational agencies to help them use planning data to develop their local vocational education plans.

Evaluation activities in several States were supported, in part, by Section 102(d) planning funds. This support extended not only to the actual evaluations themselves, but also to State efforts to disseminate evaluation results to local educational agencies and to assist them in using these results to improve their programs. Analysis of evaluation results also took place at the State level to determine statewide vocational education needs.

As shown above, the uses of planning funds are similar to the uses of State and local administration funds, which are discussed in the preceding section. The impact of both types of funds is also similar. Since fiscal year 1980 was the first year that planning funds were available, and since the total amount appropriated was less than $5 million (out of a total appropriation of over $655 million for use in 1980), it is difficult to assess the impact of these funds at this time.

## STATE ADMINISTRATION--FULL-TIME SEX EQUITY PERSONNEL

Section 104(b)(1) requires States to assign full-time personnel to assist State Boards of Vocational Education in furnishing equal educational opportunity for all and eliminating sex discrimination in vocational education. Sex equity personnel have several functions: creating an awareness of programs and activities designed to reduce sex stereotyping in all vocational education programs; gathering, analyzing, and disseminating data on the status of men and women, students and employees in the vocational education programs of that State; and assisting local educational agencies and others in improving vocational education opportunities for women. The sex equity coordinators and their activities also often affect other closely related areas in vocational education, such as programs for displaced homemakers (Sec. 120(b)(1)(L)), grants to eliminate sex bias (Sec. 136), and support services for women (Sec. 120(b)(1)(J)). More information on these areas can be found in the appropriate parts of this report.

In 1979 all States employed the required full-time personnel to promote sex equity. An informal poll of 46 sex equity coordinators and eight State Directors of Vocational Education in April 1981 indicated that a large majority (73 percent) of the respondents felt that State educational agencies would not continue to employ full-time sex equity personnel unless required to do so by law. In addition, respondents felt that such full-time sex equity personnel are essential for achieving sex equity goals in vocational education.

An analysis of expenditures of the sex equity set-aside was done by the Office of Vocational and Adult Education (OVAE). This survey found that several States had failed to spend the full set-aside during the first year in which the law had been in effect (July 1977-June 1978). During that year, $1,416,134 was spent for full-time sex equity personnel. Ninety-six percent of this total was Federal money. By fiscal year 1979, expenditures totaled $4,376,035; only 62 percent of this sum was Federal. The data from fiscal year 1979 indicates that States are increasing their commitment to equal educational opportunity for all students.

Sex equity programs at the State level vary in expenditures, audience, and impact. Those States that have both funded such programs and demonstrated institutional commitment to promote sex equity for female and male students have made the greatest progress in effecting changes in vocational enrollment patterns.

Based on a compilation of female enrollment data in vocational programs for the years 1972, 1975, 1978 and 1979 (secondary, postsecondary, and adult levels combined), the cumulative effect of sex equity provisions on vocational programs seems to have had little appreciable overall effect on the distribution of male and female enrollments. However, a definite trend toward nontraditional enrollments for both men and women becomes evident when examining enrollments in individual programs. See table 1. Thus, female enrollments in agriculture programs rose from 5.3 percent in 1972, to 19.2 percent in 1979. Conversely, male enrollments in consumer and homemaking rose from 7.9 percent in 1972, to 20.6 percent in 1979. Nevertheless, there were some program areas in which equalization of enrollments showed little or no progress: the number of males and females remained virtually static between 1972 and 1979 in such areas as office and health occupations. (Both areas are female intensive.) For further details on female enrollments in vocational programs, refer to table 1 and chart C.

Table 1 shows the total female enrollment, secondary, postsecondary, and adult, by program for 1972, 1975, 1978, and 1979. Chart C, prepared by the Office for Civil Rights, shows the sex distribution of students by program for 1979 in institutions offering five or more vocational programs. The restriction of schools to those offering five or more programs excludes under half of the comprehensive high schools, but has little effect on other types of institutions. Both chart C and table 1, although developed from different sources, show very similar data.

The primary focus of sex equity personnel is to eliminate sex discrimination and sex bias in vocational education. However, there is obviously

**TABLE 1. Percentage of Total Female Enrollment in Vocational Education, by Program, for Selected Fiscal Years**

| Program | FY 1972 | FY 1975 | FY 1978 | FY 1979* |
|---|---|---|---|---|
| Agriculture | 5.3 | 7.9 | 17.3 | 19.2 |
| Distributive | 45.2 | 34.3 | 51.4 | 53.6 |
| Health | 84.6 | 59.0 | 77.9 | 84.3 |
| Consumer and Homemaking | 92.1 | 72.0 | 80.2 | 79.4 |
| Occupational Home Economics | 86.0 | 52.0 | 82.4 | 77.9 |
| Industrial Arts** | -- | 9.0 | 17.1 | 14.9 |
| Office | 76.3 | 49.4 | 75.6 | 73.5 |
| Technical | 9.7 | 8.1 | 17.6 | 19.4 |
| Trade and Industrial | 11.6 | 9.5 | 15.4 | 17.5 |
| Other | 44.7 | 18.2*** | 44.6 | 46.0 |
| TOTAL | 55.3 | 42.0 | 50.4 | 50.8 |

Based on figures from U.S. Office of Education Summary Data for 1972, 1975, and 1978, and from NCES, VEDS, 1979.

* The 1979 figures do not include short-term adult enrollments of 3,805,071 persons.

** Industrial arts enrollments were not counted separately until 1974.

*** Many States did not break out their "other" enrollments by sex.

The general programs listed above include occupational offerings which, by nature of the occupation, attract a high percentage of students of one sex or the other. For example, cosmetology, although an offering under trade and industrial, has been and continues to be predominately female.

## Student Characteristics

## Sex Distribution By Program In Institutions Offering Five Or More Vocational Programs

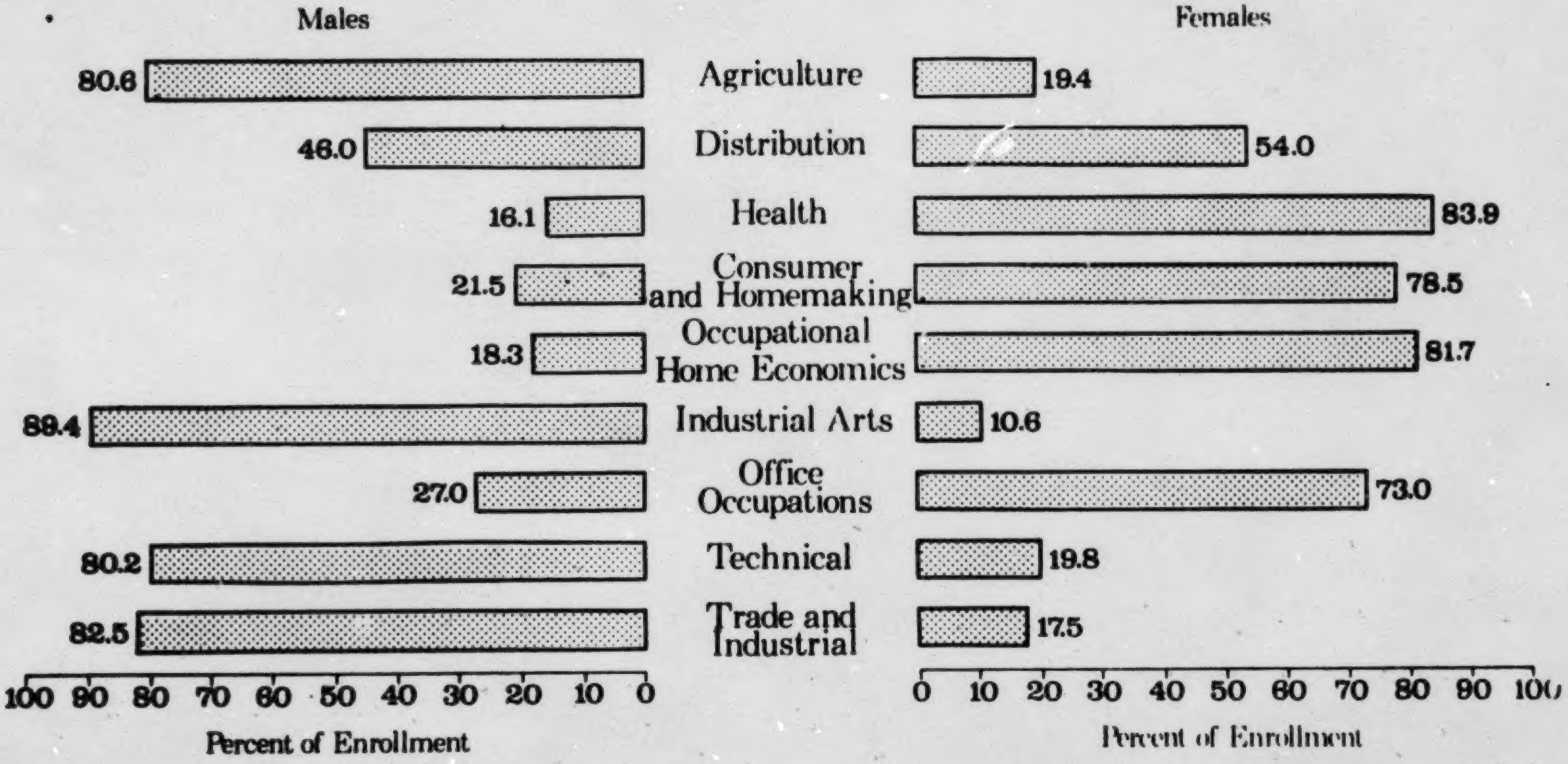

**Chart C**

Source: ED/OCR FY-'79

an overlap between equal access for females and equal access for minorities, and especially female minorities. Before investigating minority enrollments in vocational education, it is necessary to determine the proportion of racial and ethnic minorities in the population. According to the Office for Civil Rights, minorities are estimated to be about 17-21 percent of the 14-34 age group. If 20 percent is used as an average figure, chart D shows that minority enrollments are disproportionately large in three traditionally female areas: consumer and homemaking, occupational home economics, and office occupations. Minority enrollments are also large in trade and industrial education. As minorities in the population and minorities in school are counted with different reporting categories, only general comparisons can be made between the two groups. These data require further refinement and study to determine the reasons for them, and what action, if any, is necessary to increase minority enrollments in other programs.

In response to the congressional initiatives in Public Law 94-482, OVAE has monitored States' progress in eliminating sex bias, sex stereotyping, and sex discrimination in vocational education. Such monitoring includes not only an analysis of enrollment data as discussed above, but the implementation of model programs and strategies. Almost all States have identified and implemented model programs and strategies to increase nontraditional enrollments. These activities are funded mainly by grants to overcome sex bias or as exemplary programs.

In addition, OVAE has provided technical assistance to State sex equity coordinators through individual and group consultation. OVAE has initiated discussions among the coordinators regarding the equal value of work done both inside and outside the home. When the value of work is equal, both men and women will be able to choose paid or unpaid employment according to their interests and abilities, and not according to stereotypes. The productivity of workers and the stability of the family will thus be enhanced. These discussions will help vocational personnel plan and implement programs that include these concepts.

To address specific sex equity issues, OVAE has funded three projects of national significance. These projects are listed in the section entitled "Projects of National Significance," p. 94.

## OFFICE FOR CIVIL RIGHTS--GUIDELINES FOR VOCATIONAL EDUCATION

On March 21, 1979, the Office for Civil Rights (OCR) issued guidelines entitled "Vocational Education Programs Guidelines for Eliminating Discrimination and Denial of Services on the Basis of Race, Color, National Origin, Sex and Handicap." They had been mandated under the December 1977 court order in Adams v. Califano. (The Adams case began as Adams v. Richardson. Each subsequent Secretary of HEW has replaced his predecessor as the defendant in this case.) The Guidelines were

## Student Characteristics

### Racial/Ethnic Distribution In Institutions Offering Five Or More Vocational Programs

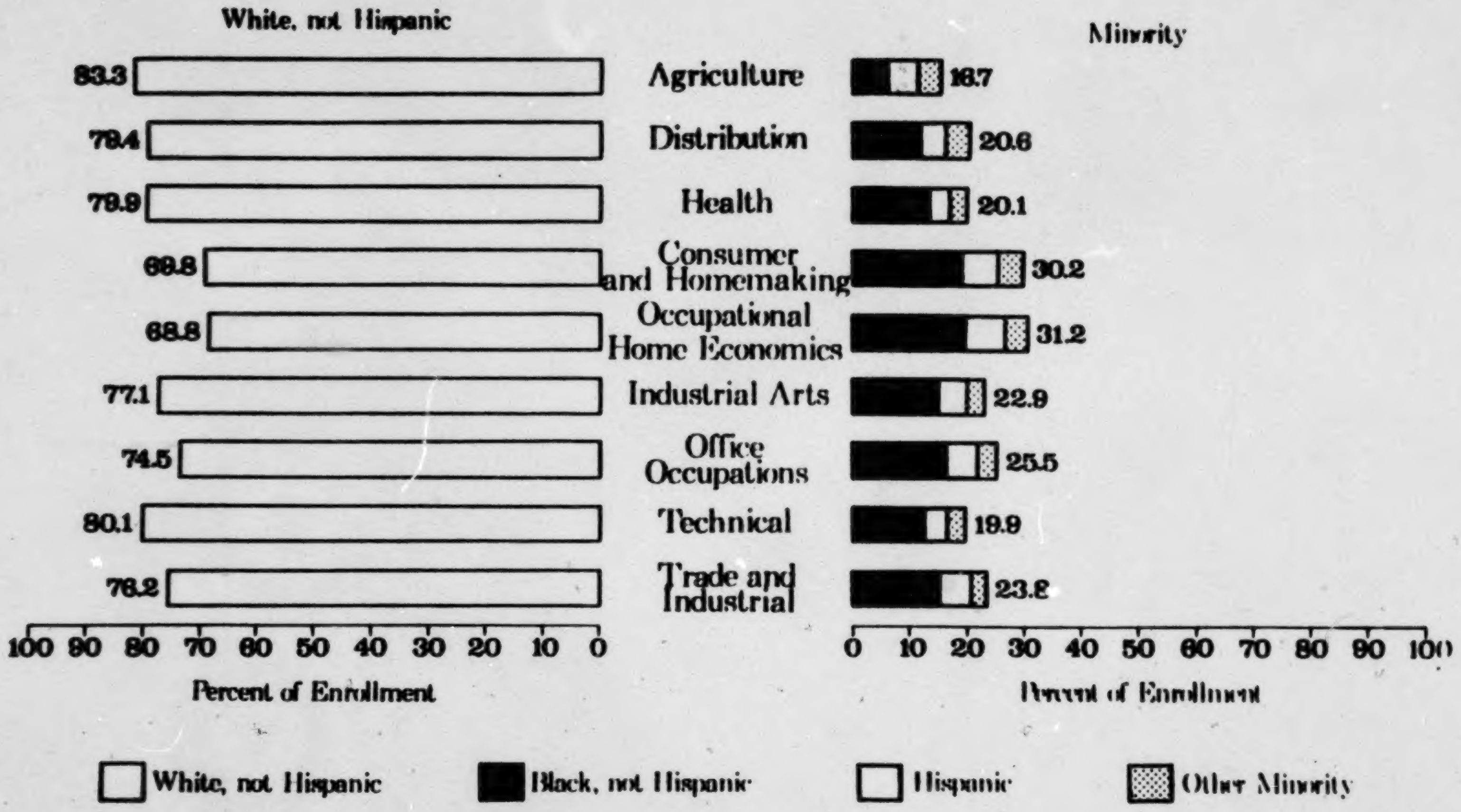

**Chart D**

**Source: ED/OCR FY-'79**

issued to provide guidance to the vocational education community in discerning civil rights violations, and understanding how civil rights statutes apply to vocational schools and programs. The Guidelines are further intended to help the vocational education community seriously examine its programs and correct discriminatory practices.

The Bureau of Occupational and Adult Education (BOAE), now Office of Vocational and Adult Education (OVAE), and OCR jointly developed a Memorandum of Understanding. Pursuant to this Memorandum and the Guidelines, OCR, in consultation with BOAE and the Office of Education's General Counsel, issued the "Procedures for Preparing the Methods of Administration Described in the Vocational Education Guidelines" (hereinafter: Memorandum of Procedures). This Memorandum of Procedures was prepared to assist State agencies in developing and implementing the Methods of Administration (MOA), a document specifically required by Part II-C of the Guidelines. The Memorandum of Procedures also provided State agencies with suggestions and criteria on how to meet their responsibilities under the Guidelines.

In July of 1979, the Memorandum of Procedures was distributed to the Nation's educational leaders. It required that States submit an MOA to BOAE before March 21, 1980. Standards for reviewing MOA's were developed jointly by OCR and BOAE. BOAE, reorganized as OVAE, conducted the initial review of the MOA's and forwarded them to OCR with recommendations for approval or disapproval. After reviewing each MOA along with OVAE's evaluation, OCR accepted or rejected each MOA, and notified States by August 15, 1980, of the action taken.

When an MOA was determined to be unacceptable, OCR conducted negotiations and offered technical assistance. Final status determinations were made by OCR by September 30, 1980. A similar review procedure will be used to incorporate MOA updates or modifications received in subsequent annual reports from States. OVAE will monitor State implementation of the MOA through its Management Evaluation Review for Compliance/Quality (MERC/Q) function and report findings to OCR. Technical assistance requested by States to implement the MOA will be provided by OCR.

In 1980, 50 States, the District of Columbia, Puerto Rico, Guam, and the Virgin Islands submitted an MOA. The first annual reports, also required by the Guidelines, were due July 1, 1980. This due date was only 3 months after the March 21, 1980 deadline for submitting the MOA's. Although no State had an approved MOA until September 1980, 20 States did submit annual reports in July 1980. Since no activities had been initiated at that time, the reports merely reflected the status of the MOA process in the individual States.

# STATE ADVISORY COUNCILS

Section 105(a) requires States to establish a State advisory council if they desire to participate in programs under the Vocational Education Act, as amended in 1976. The main purpose of the advisory council is to advise the State Board in developing and administering its vocational education program plan, and to evaluate the program, services, and activities.

During fiscal year 1980, the Office of Vocational and Adult Education (OVAE) made many efforts to improve its relationship with State Advisory Councils for Vocational Education (SACVE's). Executive directors, council chairpersons, State directors, and their planning staffs attended OVAE-sponsored workshops together. These workshops provided an excellent forum for discussion of common concerns among SACVE's, State staff for vocational education, and the (then) U.S. Office of Education staff.

Each SACVE received at least $93,500 from the Federal Government in fiscal year 1980, and eight councils received the maximum amount of $172,920. Total Federal appropriations for SACVE's were $6,073,000. A few councils also received funds from State and local sources.

Across the country, 1,482 people serve on SACVE's. The councils ranged in size from 20 to 44 members. In fiscal year 1980 the State Advisory Councils dramatically increased their percentage of female membership. This was a direct result of increased efforts on the part of the Office of Vocational and Adult Education. Women comprised 39 percent of all SACVE members, and it is expected that their membership will increase to equal their percentage in the population. Sixty-nine percent of all SACVE members were Caucasian, 26 percent were non-Caucasian, and 5 percent were not identified by race.

Each State Advisory Council must submit an annual evaluation report. The report must include the results of SACVE evaluations of the effectiveness of vocational programs, services, and activities from the previous year. The reports submitted in 1980 assessed the programs in fiscal year 1979. A survey of the reports showed that SACVE's cover a broad range in their approaches to the evaluation process. Only 20 percent of the SACVE's conducted their own evaluations; rather, most SACVE's typically used data supplied by State agencies for their evaluations. Some SACVE's reported extensive data, but failed to document the source of the information.

In conjunction with their evaluations, SACVE's provided State Boards with practical suggestions for program improvement. Most of these recommendations, however, were based on public hearing comments, informal observation, and personal knowledge of SACVE members rather than their evaluation results.

Most of the recommendations for improvement were in the area of planning. Recommendations ranged from improving internal planning procedures, obtaining better data (which included CETA and the State Occupational Information Coordinating Committees), improving evaluation, changing funding procedures to include equipment, replacement, and increasing cooperation with business and industry, to increasing articulation among the levels of education.

A second concern for many SACVE's was serving students with special needs. Recommendations included making full use of Federal priority funds for the handicapped and disadvantaged, improving coordination among State agencies that serve the same populations, obtaining 100 percent Federal funding for excess cost, developing teacher guides for serving the handicapped, and increasing preservice and inservice for teachers and guidance counselors of special needs students.

One other major concern for many SACVE's was equal access. Some SACVE's recommended more emphasis on training women for nontraditional employment, establishing State guidelines for local educational agencies to use in eliminating sex bias and sex stereotyping, and budgeting State funds for sex equity activities. Other emphases included more funding for displaced homemaker programs, better incentives and model programs, career counseling for women, and more public relations efforts among trade unions and employers to encourage the hiring of women for nontraditional jobs.

These recommendations represented the three major concerns of the State Advisory Councils in 1980. Many other recommendations were made, however, covering a wide range of topics for improving vocational education.

## LOCAL ADVISORY COUNCILS

Section 105(g) requires each eligible recipient that receives vocational education funds to establish a local advisory council for vocational education (LACVE). The local advisory council provides the eligible recipient with advice on current job needs and relevant courses.

The U.S. Department of Education has little direct contact with Local Advisory Councils for Vocational Education. However, in their annual reports, many State Advisory Councils described the needs and accomplishments of their local counterparts. According to these State reports, there is fairly wide variation in the extent of LACVE participation in the local vocational education planning process. Several State Advisory Councils suggested that LACVE's need more technical assistance from the State agencies, indicating perhaps that they themselves cannot provide technical assistance as required by the law.

## CETA AND VOCATIONAL EDUCATION COORDINATION

Section 107(b)(5) requires States to coordinate vocational education programs and manpower training programs. States must establish coordination mechanisms and criteria to avoid duplicating programs. States must submit, in their annual vocational education program plans, the results of coordination between programs funded under Public Law 94-482 and manpower training programs.

It can be said that most States are engaged in coordination of one form or another between CETA and vocational education. Some States are obviously more committed to extensive cooperation than others. In the spring of 1979, a representative group of 50 CETA prime sponsors replied to an inquiry from the U.S. Conference of Mayors concerning the status of CETA-vocational education coordination. All CETA prime sponsors reported some vocational education representation on their planning councils. Over 60 percent of the prime sponsors reporting stated that their staffs are involved in formulating the State Plan for Vocational Education. Twenty-three of the 34 State CETA supervisors responding to the same inquiry believed that coordination activities have gone beyond those mandated by the Act.

Based on a sample review of the fiscal year 1981 State Plans for Vocational Education and the 1980 State Advisory Council Evaluation Reports, ample evidence can be compiled to substantiate effective CETA-vocational education coordination. The most common result of coordination is the exchange of representatives on the different councils and committees. This has led to improved planning and to a more economical and nonduplicative use of resources in implementing both programs. Examples of such exchange of representatives include the following:

1. appointments of coordinators to function as liaisons between vocational education and employment training programs;
2. representatives from the State Employment and Training Council (SETC) on the Vocational Education State Plan Committee;
3. assurances in local plans, applications, and accountability reports that such documents are prepared in consultation with local prime sponsors;
4. committees and special meetings between State vocational education staff and the SETC staff;
5. representatives from SETC and the State Board on the State Occupational Information Coordinating Committee (SOICC).

Another result of program coordination are contracts signed by both parties to share personnel, facilities, instructional materials, and equipment. At the local administrative level, services are exchanged between CETA and vocational education. These include technical assistance, curriculum development, staff development and inservice training, followup studies, evaluation, and development and dissemination of coordination models. This joint use of available facilities, programs, and personnel has helped reduce overhead and unnecessary fund expenditures. The number of citizens being served has thus increased markedly. Participants receive institutional training, supportive services, job development and placement, counseling, adult basic education, and career exploration. Through these coordination efforts, a favorable impact on job opportunities has been achieved.

Finally, coordination has increased the exchange of data and information between CETA and vocational education including the following:

1. local occupational demand;
2. training needs;
3. training capabilities;
4. skill shortages;
5. placement rates;
6. evaluation of training results; and
7. curriculum evaluation.

The increase in the amount and quality of relevant data has encouraged a unified State approach to solving manpower needs at all levels. Better planning and coordinating for mutual goals also occurs. This retains more participants in training programs and on jobs.

According to information from both the U.S. Conference of Mayors and the State Plans and State Advisory Council Reports, elements of CETA-vocational education coordination are in place and functioning in most, if not all, States. Coordination efforts between the U.S. Department of Labor (DOL) and the newly formed Education Department (ED) at the national level are presently minimal and difficult to discern, as the CETA Coordination Unit in the Office of Vocational and Adult Education was dissolved in the recent reorganization. However, there were three joint national initiatives developed between DOL and ED. These initiatives involved the funding of 20 projects to promote cooperation between local educational agencies and prime sponsors, to serve special populations, and to provide a summer youth demonstration program. Most of these projects are still in progress. Coordination at the State and local levels, however, is progressing most effectively. Fiscal year 1981 should be a year of challenge and positive growth for CETA and vocational education relationships and activities.

# NATIONAL PRIORITY PROGRAM--HANDICAPPED

The Vocational Education Act, as amended in 1976 (Public Law 94-482), places great emphasis on providing vocational education to groups for whom the need is most acute. Section 110(a) extends vocational education to handicapped individuals of all ages. "Handicapped" is defined as "a person who is mentally retarded, hard of hearing, deaf, speech impaired, visually handicapped, seriously emotionally disturbed, orthopedically impaired, or other health impaired person or persons with specific learning disabilities . . . ." Section 110 provides Federal funds for up to 50 percent of the cost of programs, services, and activities for this national priority program. Public Law 94-142, Education for all Handicapped Children Act, stipulates that each handicapped student be provided a free, appropriate public education in the least restricted environment. This Civil Rights legislation provided additional impetus to improve and expand vocational education opportunities for handicapped learners.

Many changes in program direction took place during 1980 because of Public Law 94-142. At least one-third of the States started a system for providing the supportive services required by many handicapped students to succeed in mainstream vocational education. The composition of the supportive services vary, but most seem to have a central theme--teachers and/or aides working with handicapped students according to their specific special needs, and assisting the vocational teachers.

As vocational educators have attempted to better prepare themselves to teach handicapped persons, their emphasis has naturally focused on personnel development; i.e., developing awareness of the need and responsibility to integrate handicapped persons into the vocational education population, developing positive attitudes, and learning to teach handicapped students in regular vocational education classes (mainstreaming).

Since the program emphasis is now being placed on providing services to handicapped persons in mainstream vocational education programs, it is likely that the real number of handicapped enrolled in vocational education will increase. Each State is providing vocational education services to handicapped students who have Individualized Educational Programs (IEP) that indicate a specific vocational offering is appropriate for them. Vocational education must be prepared to serve increasingly large numbers of handicapped students as recruitment procedures improve, as career education experiences for handicapped are expanded, and as secondary special education programs and related services are further developed.

In fiscal year 1979, the handicapped enrollment in vocational education was 235,988. The fiscal year 1978 enrollment was 360,151. While this appears to be a significant drop in enrollments, the 1979 data were in response to one very specific question in the Vocational Education Data System forms relating to handicapped persons served with Sections 120 and 130 funds. This question was included in the financial section of the forms. No data on handicapped enrollment were collected in the enrollment section. The location of this question and its worrding, "Number of Students Benefiting from Sections 120 and 130 expenditures--Handicapped (added cost)," apparently caused confusion. A sampling of States indicated that this question was completed by fiscal staff in some States and by program staff in other States. Some States counted only grades 11 and 12; other States counted all secondary students, but not postsecondary or adult. Many States indicated that the 1978 data were overestimated and more accurate counts were recorded for 1979. Some States counted all handicapped students in 1978 and only excess cost students in 1979. In short, the handicapped enrollment data are still in the development stage and no comparisons can be made between fiscal year 1978 and fiscal year 1979 data.

The States reported $174,303,824 in Federal and State and local expenditures for excess cost services for the handicapped in fiscal year 1979. In previous years, the States reported the total cost of vocational education programs for the handicapped, not just the excess cost. Table 2 lists these expenditures, but comparisons between years are not appropriate. (For further discussion of excess cost, refer to the following section "National Priority Program--Disadvantaged.")

The Office of Vocational and Adult Education held a series of workshops in 1980 to provide technical assistance to States for serving the handicapped. More than 200 people participated in four regional workshops. The workshop activities revealed four major barriers to serving the handicapped in vocational education: lack of interagency cooperation, inservice programming, relevant preservice teacher preparation, and funding.

Although formal evaluation of the impact of the workshops on States' programming for the handicapped is not possible, empirical data indicating positive program results are available. States have developed interagency agreements; approximately 15 States are implementing a system for providing supportive services to handicapped in vocational education programs; and many inservice and preservice programs have moved beyond the access stage to strategies for teaching persons with specific handicapping conditions.

In addition to technical assistance, the Office of Vocational and Adult Education has funded several research projects on serving the handicapped in vocational education. The products from these projects are disseminated to State staff. More information on these research projects can be found in the section entitled "Projects of National Significance," p. 94.

TABLE 2. Total Federal and State/Local Expenditures (Including Carryover Funds) for Handicapped, Disadvantaged, and Limited English Proficiency (LEP) Students Under Part B, 1972 and 1976, and Under Section 110 (VEA), 1979

| Fiscal Year | Total Expenditures | Federal | State/Local |
|---|---|---|---|
| Handicapped | | | |
| 1972 | $ 63,944,536 | $ 37,899,822 | $ 26,044,714 |
| 1976 | 120,201,718 | 48,562,842 | 71,638,876 |
| 1979 | 174,303,824 | 53,140,457 | 121,163,367 |
| Disadvantaged | | | |
| 1972 | 179,735,988 | 63,565,259 | 116,170,729 |
| 1976 | 284,988,907 | 80,176,318 | 204,812,589 |
| 1979 | 416,993,085 | 104,954,394 | 312,038,691 |
| LEP | | | |
| 1972* | -- | -- | -- |
| 1976* | -- | -- | -- |
| 1979 | 21,280,623 | 3,878,992 | 17,401,631 |

* Limited English proficiency students were not identified separately in 1972 and 1976. In 1972 and 1976, funds were used to pay the full cost of vocational education for the handicapped and disadvantaged students. In 1979, only the excess costs could be funded with Section 110 funds for the handicapped, disadvantaged, and limited English proficiency students.

# NATIONAL PRIORITY PROGRAM--DISADVANTAGED

Since the passage of the Vocational Education Act (VEA) of 1963, Congress has specified that some of the funds granted to the States under this legislation be used to assist the disadvantaged. Disadvantaged students are those with academic, socioeconomic, or other handicaps (other than physical or mental handicaps) which prevent them from succeeding in regular vocational education programs. Section 110(b) of the amended Act requires that 20 percent of the State's Section 102(a) allotment (Subparts 2 and 3 combined) be used for disadvantaged students, a national priority program.

Monies available under Section 110 are governed by "excess cost" provisions. The term "excess cost" is interpreted in Section 104.303 of the vocational education Regulations accompanying the Education Amendments of 1976 (Federal Register, Vol. 42, No. 191, dated 10/3/77). After some confusion, these provisions were implemented at the beginning of fiscal year 1979. The interpretation stipulates that the Secretary will pay to each State an amount not to exceed 50 percent of the "excess cost" of programs, services, and activities under Subparts 2 and 3 of the VEA for special needs students, including the disadvantaged. Excess cost, then, is defined as the cost of special vocational education programs and/or related services incurred for the benefit of special needs students. This cost must be over and above the cost of comparable vocational instruction for students who are not classified as having special needs. Further, States must match Federal monies used under Section 110 on a dollar-for-dollar basis.

The excess cost interpretation was designed to permit a limited amount of Federal funds to serve a larger number of disadvantaged students. This use is comparable to the provisions of Title I of the Elementary and Secondary Education Act and the Education of the Handicapped Act. Federal funds are used for programs and/or services which enable disadvantaged students to participate in regular classroom activities or receive comparable education in a separate or modified setting.

Fiscal year 1979 data indicate that 998,965 disadvantaged students were enrolled in vocational education programs around the Nation and received special services funded by Section 110(b). This enrollment figure shows an apparent decline from fiscal year 1978 in the number of disadvantaged students served. There are several reasons for this. First, the excess cost provisions went into effect in fiscal year 1979. These require a more refined method of identifying individuals who need special assistance; consequently, it became apparent that some States had overestimated the number of students served in fiscal year 1978. These States subsequently reduced their enrollment counts in fiscal year 1979.

Second, the separate matching requirement for Section 110 funds has also inhibited programs and services. Inflation and the unwillingness or inability of State and local governments to appropriate funds for this special purpose have made it difficult to raise the necessary matching funds for Section 110 Federal dollars. Some localities have thus had to refuse Federal funds. Since States have 27 months during which to spend Federal funds, final data have not been received for the fiscal year 1979 grant award, which States may spend in fiscal years 1979, 1980, and the first 3 months of 1981. Consequently, it is not yet possible to determine whether States have in fact been able to meet the matching requirements of the excess cost provisions. It appears though, that rather than doubling the amount of money for disadvantaged students, the matching requirement may have hindered programs and services and caused a decline in enrollments in areas of greatest need.

States reported total expenditures of $416,993,085 under Section 110(b) for the disadvantaged during fiscal year 1979. Federal funds amounted to $10,954,394 or 25.2 percent of this total. While these figures represent a decrease of approximately $55 million from fiscal year 1978, it must be noted that in fiscal year 1979 only excess cost expenditures were reported. Conversely, in fiscal year 1978 the total cost of serving disadvantaged students was reported. Table 2, p. 21, shows the overall increase in expenditures for the handicapped, disadvantaged, and persons with limited English proficiency since fiscal year 1972.

Section 110(b) funds are providing significant activities for meeting the needs of the disadvantaged. Vocational education programs are adapted to meet individual learning needs, curriculum materials separated into modules, basic education using vocational language integrated into remedial classes, and learning centers set up away from the school setting.

Information from advisory councils and site visits by the Department of Education indicate, however, that there is still much progress to be made. Some school systems are reluctant to acknowledge the existence of disadvantaged students because they do not have the necessary matching funds to implement programs under Section 110(b), or they are uncertain about which programs to provide the disadvantaged. Further, they may lack the necessary popular support for such an initiative. It is still administratively and financially simpler to avoid mainstreaming and to have separate classes for the disadvantaged (or for any of the special needs population). Under these circumstances, the entire cost of the class can be supported by set-aside funds. In addition, CETA programs are also heavily relied upon because these Federal funds do not require State and local matching and the program is administratively more flexible than the VEA. These problems will be the focus of the Department's technical assistance efforts in the future.

# NATIONAL PRIORITY PROGRAM--LIMITED ENGLISH PROFICIENCY

Section 110(b) requires States to serve persons who have limited proficiency in English. The term "limited English proficiency" (LEP), or "limited English-speaking ability," the term used in the Act, refers to individuals who were not born in the U.S. and/or whose native tongue is other than English. Also included are persons who come from an environment where a language other than English is dominant, and for that reason, have difficulty speaking and understanding instruction in English.

Under Section 110(b), States are required to spend 20 percent of their Basic Grant award for disadvantaged persons. Of this set-aside, States must use a minimum portion for persons with limited English proficiency (LEP). The LEP funding level is determined by the proportion of the LEP 15- to 24-year-old population in the State's total 15- to 24-year-old population. While these funds must be matched by State and local funds as part of the total Section 110(b) disadvantaged set-aside, a separate dollar-for-dollar match of Federal LEP money is not required.

A reported 44,107 persons benefited from the LEP set-aside during fiscal year 1979. While this is a decrease from the number reported in fiscal year 1978 (86,824), the reasons for this decline are much the same as those listed for the disadvantaged in the preceding section. Thus, matching requirements, LEP population overestimates, and excess cost provisions (the latter are discussed in the preceding section of this report dealing with the disadvantaged), as well as differing data collection methodologies between 1978 and 1979, account for the differences.

Expenditures for the LEP students totaled $21,280,623 in fiscal year 1979, approximately $2 million more than in fiscal year 1978. However, because the excess cost provisions went into effect during fiscal year 1979, comparisons between these 2 years are necessarily skewed.

States appear to be having difficulties serving the LEP population. Some States have reported problems in identifying this population and, almost in desperation, have classified students as LEP on the basis of surnames! Other States have assumed that all LEP students require remedial instruction, when, in fact, many are well-educated, but in another language. Many communities have limited knowledge of how to teach LEP students, or they lack sufficient resources to accomplish their goals. Because of these difficulties, there are not as many programs for LEP students as States' population estimates would seem to indicate.

Progress in serving LEP students, however, is being made. States are using language dominance surveys, State bilingual reports, State evaluations, State census reports, or foreign language reports to identify LEP students. More curriculum material is being prepared which can be used in LEP classes. Support services and programs include the use of bilingual articles and paraprofessionals, the teaching of English as a second language, the teaching of vocational English, individual and group counseling, tutorial programs, and contracted research projects. Five States have hired a full-time staff person to work exclusively on limited English proficiency student concerns. Increasing numbers of persons are being trained as vocational education teachers for LEP students. Because many States have increased their efforts to serve this national priority group, it is likely that the number of programs to serve LEP students will increase significantly.

## NATIONAL PRIORITY PROGRAM--POSTSECONDARY AND ADULT

Section 110(c) requires States to use a minimum of 15 percent of their 102(a) allotment (Subparts 2 and 3 combined) for vocational education at the postsecondary and adult levels. The Act further stipulates that the Federal share of the cost of such programs will not exceed 50 percent, i.e., States must match this program dollar-for-dollar. Funds are to be used for vocational education programs: (1) for persons in programs leading to an associate or other degree but not designed to lead to a baccalaureate or higher degree; (2) for persons already in the labor market or unemployed; and (3) for persons who have completed or left high school and who are not covered by the description at (1), above.

The purpose of the postsecondary and adult provision in the Act is to encourage States to provide programs: (1) to prepare technicians and specialists as support personnel for professionals and managers; (2) to prepare skilled workers; and (3) to upgrade and update an individual's education, and generally improve current or teach new job skills.

Vocational education at the postsecondary level is offered by public and private collegiate and noncollegiate institutions. This is in contrast to vocational education at the secondary level, which is offered primarily through the public school system. Short- and long-term vocational education programs for adults who attend school on a part-time basis are held at all types of institutions, including public schools that serve secondary students during regular school hours.

According to 1979 data, postsecondary enrollments decreased slightly to 1,949,558 students from the 2,089,170 reported in 1978. The long- and short-term adult enrollments, however, increased from 4,379,639 in 1978 to 4,774,631 in 1979. The total enrollment for postsecondary and adult education in 1979 was thus 6,724,189. Table 3 shows the overall increase in postsecondary and adult enrollments since 1972. There were 204,559 postsecondary students who completed programs during 1979. Long-term adult completions during 1979 totaled 165,844. Short-term adult enrollments, as the term implies, are not enrolled in a planned sequence of courses leading to a specified vocational goal. Rather,

TABLE 3. Total Enrollment in Vocational Education by Level for Selected Fiscal Years

| Fiscal Year | Total Enrollment | Secondary | Postsecondary | Adult |
|---|---|---|---|---|
| 1972 | 11,602,144 | 7,231,648 | 1,304,092 | 3,066,404 |
| 1976 | 15,133,322 | 8,860,947 | 2,202,800 | 4,069,575 |
| 1979 | 17,033,620 | 10,309,431 | 1,949,558* | 4,774,631 |

* The Vocational Education Act, as amended in 1976, changed the definition of postsecondary which shifted some students to the adult level.

they are enrolled in specific courses for upgrading, retraining, or avocational pursuits. These enrollments are thus not counted as completers or leavers.

Placement rates for 1979 are not yet available. In 1978, however, 74.6 percent of those available for placement at the postsecondary level were employed full time in their field of training or in a related occupation. Another 19.6 percent were employed in other fields or worked part time. Of the adult completers, 73.4 percent of those available for placement were employed full time in their field of training or in a related occupation. Another 18.5 percent were employed in other fields or worked part time.

Fiscal expenditures, including carryover funds, to support the postsecondary and adult programs in 1979 totaled over $2.1 billion. The Federal portion of this total exceeded $133 million or 6.2 percent. The ratio of State and local to Federal expenditures was 15:1 for 1979. This was an increase from the more than $1.5 billion total expenditures in fiscal year 1978 of which $106 million was Federal or 6.9 percent.

## MANAGEMENT EVALUATION REVIEW FOR COMPLIANCE/QUALITY

Fiscal year 1980 was the fourth year that Management Evaluation Reviews for Compliance/Quality (MERC/Q's) were conducted in States that received Federal vocational education funds under Public Law 94-482. Eleven States were reviewed during 1980 for State activities conducted in 1979. Table 4 shows that these States were in compliance on the majority of items that were reviewed.

The compliance portion of the 1980 MERC/Q's revealed one major problem area, and several other minor but still significant and recurring problem areas. The most frequent noncompliance finding was fund distribution procedures, or funding formula. Problems involved giving priority to applications based on economically depressed areas and high unemployment rate, and programs new to the area. States also had difficulty basing fund availability on relative financial ability, and concentration of low-income families or concentration of high-cost students. Fund distribution has been, perhaps, the most difficult section of the Vocational Education Amendments of 1976, both for the States to implement and for the Federal Government to monitor. Every State reviewed had some problems with its fund distribution procedures: missing, inappropriately weighted, or misapplied formula factors.

Other noncompliance problems recurred consistently, though less frequently. These included handicapped (Section 504 and set-aside requirements), disadvantaged (Subpart 4 and set-aside requirements), equal access

TABLE 4. Summary of MERC/Q Compliance Findings--
By State, FY 1980

| State | Items | Applicable | Compliance | Percent | Noncompliance | Percent | To be Determined | Percent |
|---|---|---|---|---|---|---|---|---|
| Connecticut | 228 | 212 | 192 | 90.6 | 18 | 8.5 | 2 | .9 |
| New York | 238 | 216 | 196 | 90.7 | 16 | 7.4 | 4 | 1.9 |
| Delaware | 252 | 212 | 195 | 92.0 | 7 | 3.3 | 10 | 4.7 |
| South Carolina | 253 | 235 | 199 | 84.7 | 23 | 9.8 | 13 | 5.5 |
| Kentucky | 239 | 223 | 195 | 87.4 | 24 | 10.8 | 4 | 1.8 |
| Wisconsin | 241 | 233 | 198 | 85.0 | 30 | 12.9 | 5 | 2.1 |
| Oklahoma | | | | | | | | |
| Secondary | 183 | 174 | 164 | 94.2 | 6 | 3.5 | 4 | 2.3 |
| Postsecondary | 245 | 188 | 133 | 70.7 | 15 | 8.0 | 40 | 21.3 |
| Missouri | 242 | 230 | 218 | 94.8 | 7 | 3.0 | 5 | 2.2 |
| Montana | 222 | 194 | 168 | 86.6 | 26 | 13.4 | -- | -- |
| Nevada | 253 | 220 | 194 | 88.2 | 16 | 7.3 | 10 | 4.5 |
| Idaho | 276 | 243 | 220 | 90.5 | 17 | 7.0 | 6 | 2.5 |
| TOTAL | 2,872 | 2,580 | 2,272 | 88.1 | 205 | 7.9 | 103 | 4.0 |
| AVERAGE | 239 | 215 | 189 | 87.9 | 17 | 7.9 | 9 | 4.2 |

(primarily Section 504, Title IX, incentives, displaced homemakers, and consumer and homemaking education), State and local planning (assessment, goals, and funds to meet employment needs), State administration (primarily Section 504, Title IX, full-time personnel to reduce sex bias, and fund distribution procedures), and Subpart 2 (primarily displaced homemakers, cooperative vocational education, administration, and set-asides). There is obviously much overlap between these categories, further emphasizing them as critical areas. Table 5 shows a summary of MERC/Q compliance by program area for 1980.

The States often had difficulty with two general areas: serving special populations, and specific State planning, funding, and administrative procedures. There seem to be several reasons for this, including inadequate identification and outreach, lack of coordination with related agencies, unwieldy organizational structures, and misunderstanding and misapplication of rules and regulations.

The quality portion of the 1980 MERC/Q's included State planning procedures, evaluation and student followup, and equal access. Recommendations are listed below:

A. Planning

1. Encourage outside agencies, groups, and individuals to become involved in the State planning process.

2. Develop more comprehensive policy manuals and provide greater procedural direction through guides and handbooks.

3. Promote coordination with other State agencies in order to fit labor supply with occupational demand.

4. Assist eligible recipients in preparing annual plans and applications and developing goals and objectives.

5. Publish a "mini plan" as a public relations tool.

6. Encourage new programs.

B. Evaluation and Followup

1. Develop a policy and procedures manual or handbook for evaluating local programs.

2. Encourage outside agencies, groups, and individuals to participate in evaluating programs.

3. Revise and update continuously the evaluation and followup survey instruments and procedures.

### TABLE 5. Summary of MERC/Q Compliance Findings-- By Program Area, FY 1980

| Area | Items | Applicable | Compliance | Percent | Noncompliance | Percent | To be Determined | Percent |
|---|---|---|---|---|---|---|---|---|
| Vocational Education | 1,716 | 1,482 | 1,304 | 88.0 | 132 | 8.9 | 46 | 3.1 |
| Adult Education | 644 | 631 | 600 | 95.1 | 20 | 3.2 | 11 | 1.7 |
| CETA | 170 | 153 | 143 | 93.5 | 7 | 4.6 | 3 | 2.0 |
| Title IX | 200 | 176 | 136 | 77.3 | 16 | 9.1 | 24 | 13.6 |
| Section 504 | 142 | 138 | 89 | 64.5 | 30 | 21.7 | 19 | 13.8 |
| TOTAL | 2,872 | 2,580 | 2,272 | 88.1 | 205 | 7.9 | 103 | 4.0 |

4. Tabulate, analyze, and disseminate followup data and evaluation results.

5. Establish a standard mechanism to assure that the results of evaluation and followup are used to improve programs, services and activities.

6. Train evaluators to apply evaluation criteria uniformly and consistently.

C. Equal Access

1. Expand technical assistance to eligible recipients through an action-oriented approach.

2. Develop more comprehensive State and local policies which include specific support for equal access for all populations.

3. Involve other interested groups, agencies, and individuals in identifying and providing services to target populations.

4. Use available data to determine priorities and develop goals, and measurable activities for meeting the needs of target populations.

5. Strengthen the role of equal access in guidance and counseling programs to encourage nontraditional enrollments.

6. Increase efforts to identify and serve persons with limited English proficiency.

This summary lists some common problems and recommendations for the 11 States reviewed in 1980. Problems that surface during the on-site review are discussed with the State, and actions to be taken to correct the problems are cooperatively decided. A schedule of completion dates is determined that will enable the State to take actions to fully meet the requirements of the law. After the review, MERC/Q staff continue to work with the States through telephone calls and letters to help them complete the necessary actions by the scheduled dates.

Problem areas uncovered during the on-site review are also referred to program specialists. Technical assistance is then provided to the State relative to procedures that must be implemented to correct identified deficiencies and bring about compliance with the law.

## VOCATIONAL EDUCATION AUDITS

Section 112(a)(2) requires that fiscal audits be conducted in States that receive funds for vocational education. In fiscal year 1980, the Office of Vocational and Adult Education (OVAE) received final vocational education audit reports for seven States from the Office of Inspector General, Education Department. The auditors recommended that six of the seven States return approximately $4.8 million to the Federal Government. OVAE sustained approximately $210,000 of the amount. Audit exceptions totaling approximately $330,000 are still pending resolution. Of the six States required to return funds, only one is appealing the decision.

Although all audit reports showed that the States generally conducted their programs in accordance with the law and regulations, the 1980 final reports listed a wide range of audit exceptions. The financial findings included the following: excessive fund accumulation, lapsed funds, inappropriate use of handicapped and special disadvantaged funds, failure to maintain effort, unsupported postsecondary expenditures, inappropriate matching of work-study funds, and the incurring of expenditures unrelated to the grant. In many instances there was not a clear audit trail to determine whether funds had been spent in accordance with the law; in such cases, the auditors found the States not in compliance. In their defense, the States were able to furnish documentation to OVAE as evidence that the funds had indeed been spent legitimately. OVAE was able to resolve most of the financial findings in this manner.

In addition to the financial findings, the auditors found other administrative procedures out of compliance with the law. These findings included the following: inadequate evaluation, incorrect financial reporting, failure to investigate maintenance of effort, improper funding procedures, lack of local audits, improper letter of credit procedures, inadequate local plans, inadequate property management, and inadequate identification of limited English proficiency students. In most instances, States corrected these deficiencies before the final audits reached OVAE. Technical assistance is being provided to those States that are having difficulty in making the necessary corrections.

The findings listed above refer to final audit reports that were received in fiscal year 1980. The Office of Vocational and Adult Education also acted on audits that had been received prior to that year. Accordingly, negotiations were conducted with two States and four letters of final determination were issued. In these cases, OVAE requested a refund of approximately $540,000 to the Federal Government. One State appealed OVAE's decision that funds be returned. One State was monitored on-site to insure that its administrative deficiencies were corrected.

The financial findings and deficiencies sustained by OVAE from the pre-fiscal year 1980 audits were similar to the findings of the fiscal year 1980 audits. Again, administrative deficiencies were generally corrected before OVAE received the final audit reports.

## STATE EVALUATION RESULTS

Almost every State and Territory evaluated its vocational education programs in fiscal year 1979 as required by Section 112. The few States and Territories that did not complete evaluations during this period were planning and implementing evaluation systems for 1980.

States used different processes to evaluate the various aspects of vocational education programs. These included student followup studies, employer satisfaction studies, student self-evaluations, teacher and administrator evaluations, and site visits. Most States used more than one of these evaluation processes.

Many States conducted employer satisfaction surveys in which employers rated their employees who were vocational education graduates. The criteria for the ratings were as follows: job knowledge, ability to operate equipment, effectiveness, proficiency, work attitude, and personal qualities. The results of the employer satisfaction surveys showed that, for every criteria surveyed, the vocational education graduates were rated favorably by a majority of their employers.

States also reviewed their programs in terms of relative strengths and weaknesses. The fiscal year 1979 Accountability Reports emphasize weaknesses more so than strengths, possibly reflecting concern about program improvement. Many recommendations for improvements were made by each State, and often these recommendations were already being implemented.

The aspects of States' vocational education programs listed frequently as strengths and weaknesses in the Accountability Reports follow: (Some strengths listed by many States are cited most often as weaknesses by other States.)

Strengths (in descending order)

1. Services for handicapped, disadvantaged, limited English proficiency students, sex equity

2. Guidance

3. Faculty experience

4. Instructional materials and methods

5. Local advisory councils
6. Program facilities and equipment

Weaknesses (in descending order)

1. Guidance (and placement)
2. Instructional materials and methods
3. Advisory council concerns
4. Equipment
5. Graduate followup
6. Technical craft committees

The fiscal year 1979 Accountability Reports also included an evaluation of services for the disadvantaged, handicapped, and limited English proficiency students. These reports included more positive statements than negative ones. Several States reported that they were meeting the needs of the disadvantaged, handicapped, and limited English proficiency students, and others reported progress toward meeting this goal. Problems listed included identification of students in the target groups, lack of local matching funds, and inaccessibility of programs.

Equal access was another aspect of the State evaluation process. Several States reported good services and generally positive progress in this area. Some of the States noted that recruiting and admissions procedures had improved, and that a shift had occurred in the male/female enrollment ratio in various disciplines. As a result of the evaluations, some problems were noted: lack of emphasis on equal access in the past, static male/female ratios, difficulties in collecting and using data, and funding problems.

# SUBPART 2. BASIC GRANT

## Introduction

Under Subpart 2, Section 120, the Secretary of Education is authorized to make grants to States to assist them in conducting vocational education programs according to approved State Plans for Vocational Education. Such a grant is called a "Basic Grant," and it may be used for any of the 16 purposes set forth in Section 120(b) of the Act. Thirteen of these purposes are discussed in this section of the report. The remaining three (State administration, local administration, and sex-equity personnel) are discussed in the preceding section, "Subpart 1--General Provisions."

Federal allotments for Subpart 2 totaled $412,980,320 in 1978, and $430,671,966 in 1979. Actual total expenditures for all of Subpart 2 in 1978 came to $379,555,148 (Federal), and $4,597,835,991 (State and local); the ratio of State and local to Federal expenditures was 12:1. In 1979, Federal expenditures came to $404,132,489 and State and local to $5,215,768,528; the ratio of State and local to Federal thus was 12.9:1.

## VOCATIONAL EDUCATION PROGRAMS

Vocational education programs constitute the major purpose of the Basic Grant. These programs provide learning experiences which prepare individuals for paid employment. This may include prevocational activities such as guidance programs to increase the student's awareness of self and career. These are essential to educational decisionmaking. Vocational education may also provide basic skills programs aimed at increasing proficiency in mathematics, reading, and writing. The major goal of vocational education programs, however, is to increase the student's knowledge and skills relating to a specific job or occupational area. Vocational education offers over 400 instructional programs at the secondary, postsecondary, or adult levels, designed to increase a person's employability or upgrade a person's skill in a current job. These courses are usually grouped under the headings of seven traditional major occupational program areas. These areas are individually discussed below.

Expenditures at all levels of instruction for vocational education programs only, under Section 120(b)(1)(A), totaled $304,395,088 (Federal) and $3,607,716,306 (State and local) in 1978. The ratio of State and local to Federal expenditures was thus 12:1, with Federal dollars comprising only 7.8 percent of the 1978 total.

In 1979, expenditures for vocational education programs under Section 120 were $4,834,815,462 ($4,508,341,161 State and local; $326,474,301, or 6.8 percent, Federal; ratio of State and local to Federal was 13.8:1).

These expenditure figures exclude consumer and homemaking and industrial arts, but include carryover funds.

Enrollment at all levels of instruction in vocational education programs under Section 120(b)(1)(A) in 1979 was 11,693,218; up slightly from the 1978 total of 11,488,649. These enrollment figures exclude consumer and homemaking (Subpart 5--Section 150) and industrial arts (Section 120(b)(1)(I)), which are discussed elsewhere in this report. Table 6 and chart E show enrollments by program area.

Although placement rates for 1979 are not yet available, rates for 1978 are presented to show vocational education's typical performance. Of all those available for placement in 1978, including all levels, 66.4 percent were placed full time in the field of their training or in a related occupation. Another 25.4 percent were employed in a field not related to their training or were employed part time. A full 91.8 percent of those available for placement were employed in 1978.

For each of the following occupational areas, the 1978 placement rates will be listed in the same order as above: first, those placed full time in the field of their training or in a related occupation; second, those placed in a field not related to their training or employed part time; and third, total employed.

## Agriculture

This program continues to diversify, including training for employment in agribusiness, agricultural production, agricultural sciences, renewable natural resources, and environmental occupations. Agribusiness and agricultural production programs teach individuals how to apply scientific and technical skills to the diverse areas of agriculture concerned with crops and animals, supplies and services, mechanics, the processing and marketing of products, and the like. The agricultural sciences programs address the production, processing, and distribution of food and fiber. Programs in renewable natural resources prepare individuals for employment related to the conservation and improvement of natural resources such as air, soil, water, land, fish, and wildlife for economic and recreational purposes.

Of the 964,452 students enrolled in agriculture programs in 1979, 134,521 completed the program and were available for work or continuing education. An additional 28,415 students left the program prior to completion and, with the skills they obtained, were also available for employment. Of the total number of students enrolled, 19.2 percent were female. Placement rates for 1978 were 66.8 percent and 28.1 percent, respectively, for a total of 94.9 percent placed.

## TABLE 6. Total Enrollment in Vocational Education By Program for Selected Fiscal Years

| Program | FY 1972 | FY 1976 | FY 1979 |
|---|---|---|---|
| Agriculture | 896,460 | 1,059,717 | 964,452 |
| Distributive | 640,423 | 900,604 | 927,929 |
| Health | 336,652 | 684,904 | 791,155 |
| Consumer and Homemaking | 3,165,732 | 3,515,042 | 3,658,475 |
| Occupational Home Economics | 279,966 | 471,289 | 577,818 |
| Industrial Arts* | -- | 446,067 | 1,681,927 |
| Office | 2,351,878 | 3,114,692 | 3,439,623 |
| Technical | 337,069 | 484,807 | 472,200 |
| Trade and Industrial | 2,397,968 | 3,109,950 | 3,411,796 |
| Other | 1,304,619 | 1,558,791 | 1,108,245 |
| TOTAL** | 11,710,767 | 15,345,863 | 17,033,620 |

* Industrial arts enrollments were not counted separately until 1974.

** Totals do not equal Table 3 because of duplicated counts in the program areas in 1972 and 1976.

## Enrollments

## In Vocational Education (VEA) By Program Area

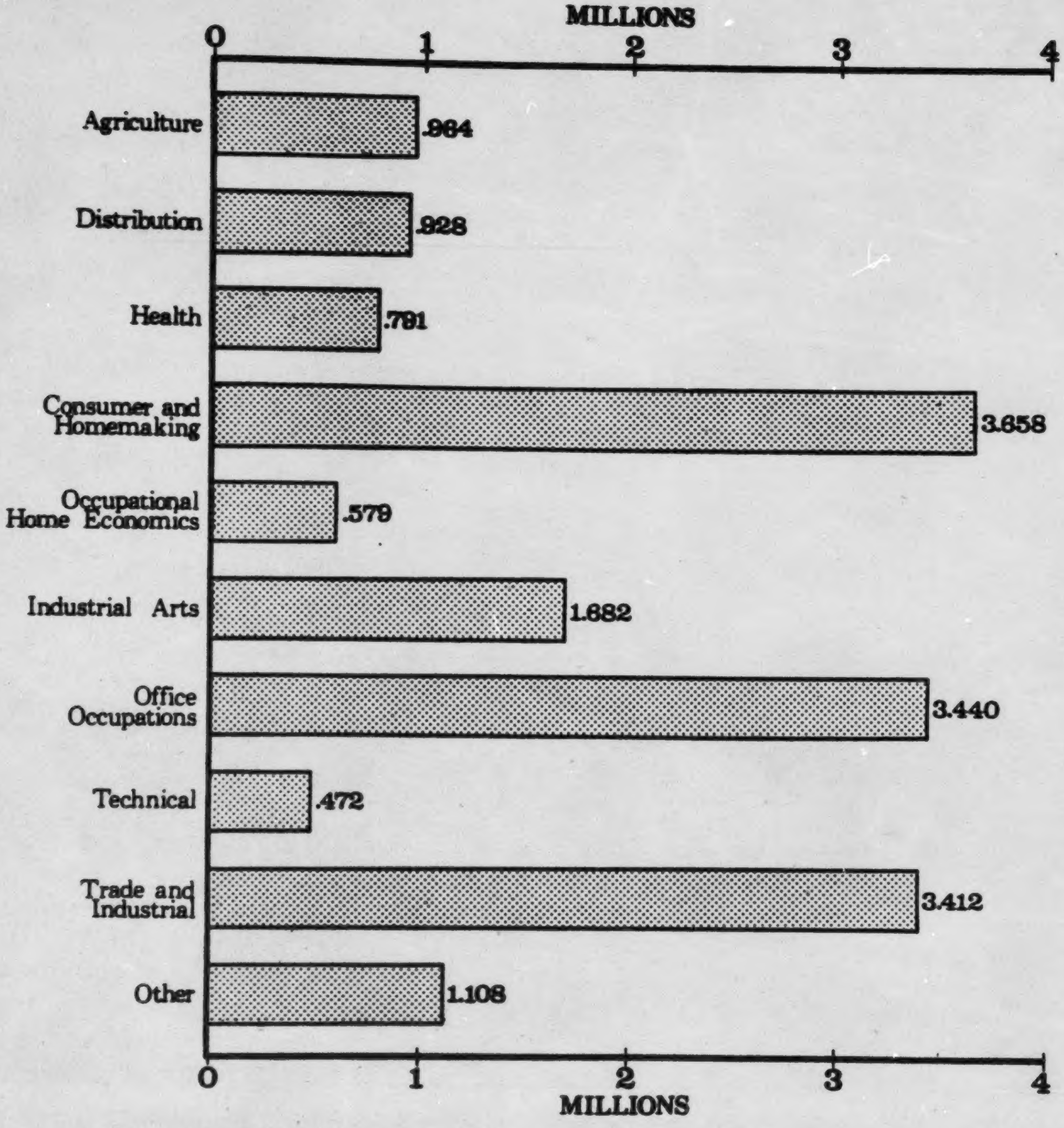

**Chart E**

Source: NCES/VEDS FY-'79

## Marketing and Distribution

This program prepares individuals for initial and higher levels of employment in occupations associated with the flow of industrial and consumer goods in channels of trade, and the marketing of services.

Instructional programs emphasize the performance of various marketing functions, such as selling, buying, pricing, promoting, financing, transporting, storing, marketing research, and marketing management. This program, particularly at the secondary level, relies upon cooperative education (part-time employment) as the primary means for applying classroom instruction.

The typical enrollee is prepared for initial or entry employment, but has the knowledge, skills, and attitudes for early upward mobility. Students also gain positive attitudes toward private enterprise. Management positions and business ownership are thus achievable goals.

In fiscal year 1979, total enrollment was 927,929. Adult enrollees accounted for over a third of this enrollment. Of those in pre-employment programs, 193,766 students completed programs and were available for employment or further schooling. An additional 34,231 students left programs with marketable skills but prior to completing, and were also available for work. Female enrollment was 53.6 percent of the total. Placement rates for 1978 were 64.5 percent and 27.5 percent, respectively, for a total of 92.0 percent placed.

## Health Occupations

This program prepares individuals to assist qualified health professionals in providing diagnostic, therapeutic, preventive, restorative, and rehabilitative services to patients in health care facilities, the home, and the community. The programs concern dental services, diagnostic and treatment services, medical laboratory technologies, mental health and human services, nursing related services, ophthalmic services, rehabilitation services, and support functions in such areas as pharmaceuticals, central supply, medical records, and the admitting and discharge of patients.

Enrollment in health occupations has increased steadily from 336,652 students in 1972 to a high of 791,155 recorded in 1979. Females make up 84.3 percent of the total enrollment in the health occupations. Persons completing programs during 1979 numbered 135,335. An additional 31,259 left the program with marketable job skills and were also available for employment. Placement rates for 1978 were 79.3 percent and 14.6 percent respectively, for a total of 93.9 percent placed.

## Occupational Home Economics

This program emphasizes the acquisition of skills needed for securing paid employment at the entry and advanced levels in occupations using home economics education, knowledge, and skills, such as nutritionists, child care workers, and clothing and food service workers. The instructional programs are developed from home economics education materials. Programs that prepare individuals for paid employment include services to individuals and families, and assistance to professional home economists and professionals in fields related to home economics in industry, business, and public and private agencies.

Of the 577,818 students enrolled in occupational home economics in 1979, 77.9 percent were female. In 1979, 94,049 students completed the course of study and were available for employment or further training; 21,074 left prior to completion, but were also available for employment. Placement rates for 1978 were 51.7 percent and 34.1 percent, respectively, for a total of 85.8 percent placed.

## Business and Office Occupations

Students enrolled in business and office occupations prepare for a variety of activities in planning, organizing, directing, and controlling business office systems and procedures. The program includes instruction in preparing, transcribing, systematizing, and filing records; preparing and analyzing financial records; collecting accounts and receiving and disbursing money; operating office machines and electronic data processing equipment; storing, distributing, and accounting for inventories of materials; and operating telephone switchboards.

Of the 3,439,623 students enrolled in business and office occupations programs in 1979, 558,534 completed and were available for employment or further training. An additional 128,296 students left prior to completing their program and were also available for employment. Female enrollment in these programs came to 73.5 percent. Placement rates for 1978 were 65.3 percent and 25.1 percent, respectively, for a total of 90.4 percent placed.

## Technical

Technical education is usually conducted for students enrolled in postsecondary and adult education programs. The major purpose of technical education programs is to prepare individuals for a cluster of job opportunities in a specialized field of technology. The program of instruction includes the study of the underlying sciences and mathematics as well as methods, skills, materials, and processes commonly used and services performed in a particular area of technology. Technical education prepares a person for the occupational area between the skilled craftsperson on the one hand, and the professional person, such as the physician, engineer or scientist, on the other. This program provides instruction in the following technologies: architectural, mechanical, electrical, optical, mining, petroleum, electromechanical, electro-optical, instrumentation repair and maintenance, environmental process control, industrial production processes, quality control and safety, nuclear and fossil fuel power generation, and energy conservation.

Technical education enrollment in 1979 totaled 472,200 students, of which 19.4 percent were female. Those completing the program in that year numbered 53,043; those leaving the program numbered 23,886. Both completers and leavers were available for employment. Placement rates for 1978 were 73.6 percent and 20.6 percent, respectively, for a total of 94.2 percent placed.

## Trade and Industrial Education

Trade and industrial education is the branch of vocational education which is concerned with preparing individuals for initial employment or for upgrading or retraining workers in a wide range of trade and industrial occupations. Such occupations are skilled or semiskilled and are concerned with layout designing, producing, processing, assembling, testing, maintaining, servicing, or repairing any product or commodity. Instruction is provided in the basic manipulative skills, safety, and related mathematics, drafting, and sciences. Students are trained through a combination of shop, laboratory, or cooperative education experiences designed to develop the skills required by industry. The majority of the trade and industrial education enrollment is in the construction trades, mechanical and repair programs, precision production, and in transportation and material moving occupations. To a lesser extent, students are enrolled in a number of dissimilar programs such as graphic arts, public and personal service, quantity food operations, and textile production.

Over 87,700 teachers and staff provide the learning experiences and training for 3,411,796 students. Of this total, 525,139 completed programs and were available for employment or further education and training. An additional 160,833 students left prior to completing a program. These students possessed marketable skills and were also available for employment. The number of females enrolled during 1979 accounted for 14.9 percent of the total enrollment. Placement rates for 1978 were 65.9 percent and 26.4 percent, respectively, for a total of 92.3 percent placed.

## VOCATIONAL STUDENT ORGANIZATIONS

**Vocational student organizations, as an integral part of the total instructional program, significantly help secondary, postsecondary, and college students develop vocational career competencies and leadership skills. They also promote civic responsibility, appreciation of the American private enterprise system, and the importance of the American family. Interaction between students and the business and industrial community is extensive.**

Vocational student organizations recognized by the Department of Education are:

| ORGANIZATION | MEMBERSHIP |
|---|---|
| Agriculture | |
| Future Farmers of America (FFA) | 494,000 |
| National Postsecondary Agriculture Student Organization (NPASO) | 6,900 |
| Business, Office | |
| Future Business Leaders of America (FBLA) | 200,000 |
| Office Education Association (OEA) | 74,000 |
| Distributive Education | |
| Distributive Education Clubs of America (DECA) | 182,220 |
| Health Occupations | |
| Health Occupations Students of America (HOSA) | 19,000 |
| Vocational Home Economics Education | |
| Future Homemakers of America (FHA) and Home Economics and Related Occupations (HERO) | 440,632 |
| Industrial Arts | |
| American Industrial Arts Student Associations (AIASA) | 16,500 |
| Trade and Industrial Education | |
| Vocational Industrial Clubs of America (VICA) | 310,713 |
| TOTAL | 1,743,965 |

Students gain experience in leadership by serving as elected officers. In 1979, 178,768 students functioned as elected officers of vocational student organizations. Members as well as officers receive leadership experience by serving on committees, participating in good will tours, giving speeches, and representing students and vocational education in a variety of community activities.

Leadership training activities also include annual national leadership conferences for each organization; State officer workshops and seminars at the national headquarters in Washington, D. C.; specialized leadership meetings; and State and regional workshops, conferences, seminars, and camps.

A review of registration records of these activities indicate that some 35,000 student members participate in leadership training at the national level, and over 700,000 participate in State and/or regional training. Business, industry, government agencies, and individuals continue to support the vocational student organizations through contributions of time and funds. Representatives from the community serve on national boards of directors, participate in sponsored technical and leadership workshops, and lecture.

Annually, more than a thousand businesses, industries, organizations, and individuals contribute over $1.5 million to national student organizations that serve vocational education students.

## WORK-STUDY PROGRAMS

Vocational work-study programs may be funded from Subpart 2, Basic Grant according to Section 121. These programs assist full-time vocational education students, ages 15 to 21, who need earnings from employment to begin or continue their vocational education. The Act specifies that students must work for a local educational agency or some other public nonprofit agency or institution.

Work-study addresses the national problem of youth unemployment. Employment gives this targeted group an initial job experience which provides the student with income and basic work habits and attitudes. In many cases, work-study helps disadvantaged youths develop a sound concept of work and helps them understand the reason for work. It also encourages needy vocational students to remain in school and achieve marketable skills.

An analysis of State Plans for Vocational Education and fiscal reports shows that national enrollments in work-study have declined from 53,360 in fiscal year 1976, to 38,673 in fiscal year 1978, to 27,984 in fiscal year 1979. Similarly, the amount of Federal funds States allocate to work-study programs has declined significantly since 1976. Federal funds were 57.6 percent of total expenditures in 1976, 42.3 percent in 1978, and 24.8 percent in 1979.

Under the 1968 VEA Amendments, which were in effect in 1976, Federal funds were appropriated specifically for work-study programs. During 1978 and 1979, however, when the 1976 VEA Amendments were in effect, States had the option of funding work-study programs. Sixteen States and Territories reported no VEA work-study expenditures in fiscal year 1979, whereas these same States had such programs in 1976.

Despite this apparent decrease in work-study programs, total nationwide work-study expenditures have risen from $15,497,537 in fiscal year 1976, to $16,271,748 in fiscal year 1978, to $22,250,245 in fiscal year 1979. This is attributable to the dramatic increase in State and local support of work-study; $1,567,921 in fiscal year 1976, $9,392,282 in fiscal year 1978, and $16,736,000 in fiscal year 1979.

In 1979, State and local expenditures for work-study were 75.2 percent of the total, up from 42.4 percent in 1976. It appears that States and localities are gradually replacing Federal dollars with State and local monies. This may indicate that many States eventually intend to use no Federal funds for this optional VEA program. States will thus effectively avoid the restrictions and regulations (which many States and locals feel are burdensome) governing the use of Federal funds under the VEA for work-study.

Federal funds under the Comprehensive Employment and Training Act (CETA) also serve economically disadvantaged students. CETA is often considered competition to the VEA work-study optional programs because States perceive CETA to be less burdensome administratively and to have fewer restrictions on funds use.

There are two major components of the CETA legislation which affect work-study:

1. Title II, Section 204, Vocational Education Supplemental monies. These can be used to provide vocational instruction and related services to eligible economically disadvantaged and unemployed, underemployed, or inschool students.

2. Title IV, Part C, Subpart 3, Youth Employment and Training Programs (YETP). Depending on the nature of the YETP program in any given local educational agency, work-study programs may be phased out. Economically disadvantaged students may be placed in a program which includes either transition services (including job sampling which may or may not be in the form of vocational exploration) and/or career employment experiences. In the case of career employment, YETP regulations state that all career employment experiences should have the goal of increasing the student's ability to make career decisions.

The work-study programs under the VEA are in flux with enrollments decreasing, expenditures increasing, and competition from CETA. It seems likely though, that the target population will continue to be served either through the VEA, CETA, or solely State-sponsored work-study programs.

## WORK EXPERIENCE AND CAREER EXPLORATION PROGRAM

The Work Experience and Career Exploration Program (WECEP) is authorized by the Fair Labor Standards Act, Child Labor Regulation Number 3. The program is a coordinated effort between the U.S. Department of Education's Office of Vocational and Adult Education, the U.S. Department of Labor's Wage and Hour Division, and the State Departments of Education. It provides a carefully planned work experience for 14- and 15-year-old youths who are considered to be potential school dropouts. It prepares these youths to be productive, contributing members of their communities. Vocational education funds from Section 134, guidance and counseling, and Section 110, disadvantaged, as well as State and local funds, have been used to develop and finance this program. In some States the program is coordinated with cooperative vocational education.

WECEP started in 1969 as a 3-year experimental program in 13 States; in 1980 it was in 24 States with over 40,000 participating students. A few research studies have been conducted to evaluate the effectiveness of WECEP. Two of these studies are listed below:

1. Peter J. Deanovic and William Lundell, A Report on the Effectiveness of the 1975-76 Work Experience Career Exploration Programs in the State of Illinois, Minneapolis, Minnesota, State Department of Vocational Education, Special Needs Division, March 1977.

2. Thomas F. Dorr, A Study Investigating the Effects of a Work Experience Career Exploration Program (WECEP) on a Select Group of Potential Drop-out Students During the 1978-79 School Year at DeLong Junior High, Eau Claire, Wisconsin. A research paper submitted to complete the plan B requirements in 413-731, Problems in Guidance, The Graduate College, University of Wisconsin-Stout, August 1979.

Results of this research indicate many positive effects on students' scholastic performance, attendance, and behavior. Students who participate in WECEP tend to remain in school longer, have fewer disciplinary problems, better attendance, and improved grades.

# COOPERATIVE VOCATIONAL EDUCATION PROGRAMS

Funding for cooperative vocational education programs from Subpart 2 Basic Grant is authorized by Section 122. Geographical areas with high rates of school dropouts or youth unemployment receive priority for funding. States must assure that students in nonprofit private schools may participate in cooperative vocational education programs. If students from such schools are enrolled, programs may be supported up to 100 percent with Federal funds. Employers pay students at either a minimum wage or a student-learner rate established by the Department of Labor (DOL). States may reimburse employers, where necessary, for added training costs.

Cooperative education is designed to prepare students for employment. It is a school-initiated and school-supervised program. Program activities provide instruction at the secondary, postsecondary, and adult levels and cut across all occupational areas. The key instructional elements are developing competencies needed for employability, evaluating the effectiveness of these programs, and establishing bridges between school and employment for all students, including handicapped, women, minorities, disadvantaged, and incarcerated. The consistent quality of these programs comes from using the work environment in conjunction with classroom instruction to achieve educational goals.

During fiscal year 1979 there were 536,961 students enrolled in cooperative vocational education. The estimated earnings for these students in the 57 States and Territories were $1,046,000,028. This is based on a 3-hour work day at the minimum wage of $2.90 for the 4 months of 1979, and $3.10 for the 6 months in 1980. Federal, State, and local taxes are deducted from the students' earnings. Expenditures for cooperative vocational education totaled $115,001,967 in fiscal year 1979. Federal expenditures were $8,255,763 and State and local expenditures were $106,756,204. Chart F shows that cooperative vocational education students earn nine times more than the cost of the program.

In addition to earnings, States indicate that cooperative vocational education programs provide many other advantages to the various parties involved. Students gain employment records, improved skills, expanded knowledge, improved attitudes, and opportunities to test career goals. School administrators find that cooperative programs eliminate the need for expensive, specialized equipment and laboratories since students receive training using the employer's equipment. The school is able to ensure quality instruction through immediate application of skills in realistic settings. Cooperative education also enables schools to teach more students in a given facility by carefully scheduling work and school periods. Federal, State, and local governments gain by earning interest on the taxes withheld from the students' earnings, although most taxes themselves are repaid to the students. Many States also collect

## Cooperative Vocational Education Programs

## Earning While Learning

**536,691 Students**
Average Earnings
**$1,950 Per Student**

Total Program Costs

**$ 115,000,000**

Total Estimated Student Earnings

**$ 1,046,000,000**

STUDENTS EARN 9 TIMES MORE THAN THE COST OF THE PROGRAM

**Chart F**

**Source: NCES/VEDS/OVAE FY-'79**

sales taxes when students spend their earnings. Employers find cooperative vocational education programs attractive because they respond quickly to changes in the economy, make possible better trained employees, provide present and future sources of employees, and keep some qualified young people in the community.

Employers of cooperative vocational education students can also receive tax credits. The Targeted Jobs Tax Credit (TJTC) Program was established by the Revenue Act of 1978. The Departments of Education and Labor and the Internal Revenue Service have coordinated the TJTC Program. They have developed a procedure for efficient and effective management of tax credits for participating employers. Employers indicate that this program has had a great economic impact for them. Employers of cooperative education students and economically disadvantaged students have made the TJTC Program a success.

## ENERGY EDUCATION PROGRAMS

Section 123 authorizes funds for grants to postsecondary institutions for energy education in the field of coal mining, coal mining technology, and solar energy.

In fiscal year 1979, 13 States expended a total of $1,649,194 for this purpose. Federal funds amounted to $344,837, or 20.9 percent. In fiscal year 1978, nine States expended a total of $855,735, of which $261,362, or 30.5 percent, were Federal funds. It is unclear whether the restrictions of the Vocational Education Act, as amended in 1976, have limited the use of funds for this purpose, or whether there is some other cause. There does appear to be, however, a greater commitment to energy education in the States than these figures indicate.

State curriculum laboratories were active in developing and implementing energy curriculum materials. Projects included the following: a power and energy curriculum guide, updated materials on air-conditioning and refrigeration, solar heating curriculum, a bibliography of energy and energy-related curriculum and resource materials, math, physics and chemistry for mechanics, power and utilities manual, and a power console operator's reference manual.

Other State activities in 1979 included establishing the Northwestern Vocational Energy Education Consortium. The consortium includes Alaska, Idaho, Montana, Oregon, South Dakota, Utah, Washington, and Wyoming. The consortium was established for developing curriculum in energy-related occupations. Several of the member States have identified energy education as a priority.

The Department of Education maintains liaison with the Departments of Energy and the Interior, as well as the Environmental Protection Agency, to promote energy programs. Education specialists in the Department of Education support programs and activities to emphasize the urgent need for the Nation to become energy efficient. They distribute information from these agencies to vocational educators in the States about all energy education programs. Solar, nuclear, coal, oil, and gas energy, and conservation of these resources are emphasized.

The education specialists are also active in developing and monitoring major research projects designed to prepare new kinds of energy technicians and increase awareness of energy programs. Examples of these projects include nuclear reactor operator technician, nuclear radiation protection technician, nuclear materials handling technician, nuclear plant quality assurance/control technician, nuclear instrumentation technician, and energy control and use technician. Over 50,000 units of training materials from these projects were used nationwide by 68 schools and over 30 industries during 1979.

Education specialists, in cooperation with the Department of Education Energy Action Center, assisted in planning agendas and identifying speakers for a national energy conference held in February 1980. They also assisted the American Vocational Association plan their national energy conference for State vocational leaders in January 1980.

As can be seen by the many activities at both the Federal and State level, energy education will continue to be a top priority for vocational education.

## CONSTRUCTION OF AREA VOCATIONAL SCHOOLS

Construction of area vocational school facilities is authorized by Section 120(b)(1). Construction includes constructing new buildings, acquiring, expanding, remodeling, and altering existing buildings, grading and improving sites, and architect fees. The major new construction period in States was from the late 1960's through the early 1970's. The trend over the past several years has been to expand or renovate existing schools.

In fiscal year 1979, 13 States reported Federal expenditures totaling $12,222,149 for construction. Twenty-one States reported State and local expenditures totaling $151,147,898 for the same purpose. Federal expenditures have declined by approximately $3 million from fiscal year 1978; State and local funds have decreased by approximately $24 million since that same year.

## STIPENDS

**Section 120(b)(1) authorizes stipends for students entering or already enrolled in vocational education programs. Students must have acute economic needs which cannot be met under work-study programs. In addition, the State Board must determine whether stipends may be funded. The law stipulates that vocational education stipends may only be provided by a State when other programs offering financial support to students are either inadequately funded or are unable to meet the needs of students.**

**In fiscal year 1979, only one State funded stipends for students with acute economic needs. Ohio reported using a total of $576,304 Federal funds (including carryover from fiscal year 1978) to enroll students in a work experience cooperative education program (WECEP). This was an increase of approximately $216,000 over fiscal year 1978 when Ohio was, again, the only State to fund stipends.**

## PLACEMENT SERVICES

Section 120(b)(1) authorizes grants to States to assist them in providing placement services for students who have successfully completed vocational education programs. The State Board must determine whether placement services may be funded. The law stipulates that placement services may be funded under Section 120 only when other programs providing this service are inadequately funded or are unable to meet the needs of students.

During fiscal year 1979 total expenditures for placement services were $10,473,482. This figure represents a tremendous increase from the expenditures in fiscal year 1978. At that time only $1,210,666 were spent in this area. In fiscal year 1978, the Federal expenditures amounted to 28 percent of the total amount, whereas by fiscal year 1979 the Federal share had become only 5.7 percent of the total amount spent. These figures seem to indicate a larger increase in State and local interest in the area of placement services, a change in interpretation by some States as to what constitutes placement services, or inadequate funding of guidance and counseling programs under Section 134, since job placement is a component of guidance and counseling. More information on guidance and counseling can be found in that section of this report.

## INDUSTRIAL ARTS

This instructional program is one of the options under Section 120(b)(1). It teaches individuals about industry and technology through such activities as experimenting, designing, constructing, evaluating, and using tools, machines, materials, and technological processes. The program also assists individuals in making informed and meaningful occupational choices, as well as prepares them for entry into advanced trade and industrial or technical education programs. The focus of the industrial arts program is on construction, drafting and design, electricity and electronics, energy, power, transportation, graphic arts, and manufacturing and materials processing.

At the close of 1979, the States and Territories reported serving 1,681,927 students in prevocational or exploratory programs. Of this total, 14.9 percent were female. The teachers involved in this program numbered 20,008. When added to nonfederally funded industrial arts programs serving general education and avocational students, the total number served is approximately 7 million, with over 60,000 teachers and staff involved.

In fiscal year 1979, expenditures, including carryover funds, for industrial arts came to a total of $130,463,911 (State and local, $127,077,982, or 97.4 percent; Federal, $3,385,929, or 2.6 percent; a ratio of State and local to Federal of 37.5:1). Fiscal year 1978 expenditures, including carryover funds, totaled $62,759,169, considerably less than in 1979 (State and local, $61,687,577 or 98.3 percent; Federal, $1,071,592 or 1.7 percent; a ratio of State and local to Federal of 57.5:1).

## SUPPORT SERVICES FOR WOMEN

Section 120(b)(1) authorizes States to provide "support services" for women. This section specifically targets those women who "enter vocational programs designed to prepare individuals for employment in jobs which have been traditionally limited to men . . . ."

These services can be aimed at displaced homemakers and other special groups, and may include services similar to those described in the displaced homemaker section of this report. The most typical support services are peer groups of women in nontraditional vocational education programs. Other services include transportation, day care, and counseling. Counseling prepares women for the challenges they will face day-today in a nontraditional job. Followup services are also funded to keep in contact with women after they are employed to provide support while they adjust to their job.

One State with a large program of support services for women reports that these programs receive very favorable comments from local educational agencies and community colleges. Programs include a focus on electronics, providing women with information about the type of job, what they can expect on the job, and problems they may encounter. Other programs aim to increase the number of women in apprenticeship training, focus on teenage parents and combining parenting and employment, and provide information about nontraditional careers to women in high school.

The State reports that after initial funding of these support services as model programs, the funding was then picked up by CETA. Good coordination was achieved between CETA and vocational education in continuing these programs.

In fiscal year 1979, a total of $887,092 was spent nationwide on support services for women (64 percent Federal). This represents a growth in expenditures from fiscal year 1978, when $586,496 were spent, only 12.8 percent of which was Federal. Further evidence of increased commitment to these support services is the number of States supporting such activities: five in 1978, thirteen in 1979.

## DAY CARE SERVICES

Section 120(b)(1) authorizes funds for day care services for children of students in secondary and postsecondary vocational education programs. In fiscal year 1979, 10 States funded such day care services with a total of $971,345. Federal funds comprised 25 percent ($249,330) of the total dollars spent. In contrast, six States spent a total of $805,160 for day care services in fiscal year 1978, with Federal funds comprising only 4.5 percent ($36,018) of the total.

In offering day care services, the States use, where feasible, inschool centers and laboratories for home economics and child care and guidance programs. These centers provide educational programs for the preschoolers, and at the same time, provide learning experiences for the home economics students. By using existing preschool centers and laboratories, duplication of effort is eliminated, and the day care is more accessible for the vocational education students.

## DISPLACED HOMEMAKER PROGRAMS

Education programs and services to meet the individual needs of displaced homemakers and other special groups are authorized under Section 120(b)(1)(L). Displaced homemakers are persons who have been homemakers, but because their marriages were terminated, they must seek employment. Included as "special groups" are single heads of households, homemakers and part-time workers who wish to secure full-time jobs, and women and men who are seeking jobs in nontraditional occupational areas. Legislation was introduced in the 94th and 95th Congresses that clearly recognized the need for special services for these groups.

To help ease their transition to the work force, organized education and training programs in each State prepare displaced homemakers and other special groups for employment and provide placement services for graduates of the programs. Programs include training in prevocational skills, hands-on skills, career assessment, and job readiness. Counseling is also offered. All of these services are necessary in order to expand women's choices in the nontraditional occupational areas. Job Clubs and peer support groups, such as "Meet a Role Model," encourage women to go into nontraditional training, and help women more wisely choose their training and careers.

Women are being trained at area vocational and technical centers, community colleges, and vocational high schools. Instruction is in many nontraditional program areas (machine tool technology, welding, air-conditioning, carpentry, automotive technology, electronics, and laser, dental, and optical technology) as well as traditional clerical and service areas. Vocational education offers supportive services in all programs to help women become involved in and complete their course of instruction. Students are placed in specific jobs or in internships and cooperative programs with business and industry. In sum then, vocational education is training displaced homemakers and other special groups to contribute to the productivity of this country by helping them become economically self-sufficient.

The total number of persons considered to be displaced homemakers is conservatively estimated at 5 million. According to data from the Women's Bureau of the Department of Labor, 82 percent are over 40 years of age, and 46 percent are between the ages of 55 and 64. Vocational education expenditures for displaced homemakers and other special groups increased rapidly from fiscal year 1978 to fiscal year 1979. A total of $2,413,764 was spent in fiscal year 1978, as compared to $11,794,551 in fiscal year 1979. In 1978 Federal funds made up 29.4 percent of the total amount spent, whereas in 1979 Federal funds made up only 15.6 percent of the total. This increase in the amount spent by States and localities indicates a great deal of interest in displaced homemaker programs by the States.

There were 208 programs nationwide in 1980 which served only displaced homemakers. (Other special groups were not served by these programs.) Of these programs, 65 percent received CETA funds, 30 percent received State funds, and 25 percent received vocational education funds. Approximately 10 percent received other public funds and another 10 percent received private funding.

Programs for displaced homemakers and other special groups, as indicated by these statistics, are often coordinated with both CETA and State funded projects. For example, in 1979 several States coordinated all displaced homemaker program plans with an informal committee of all State agencies. Such coordination improves services and programs.

In addition to technical assistance and dissemination activities, the Federal leadership role in serving displaced homemakers and other special groups includes funding research projects. These projects are listed in the section entitled "Projects of National Significance," p. 94.

## RESIDENTIAL VOCATIONAL SCHOOLS

Each State or Territory may use Federal Basic Grant (Section 120) funds for constructing, equipping, or operating residential vocational schools. During fiscal year 1979, three States reported that $861,231 Federal vocational funds and $3,268,559 State and local funds had been expended for such residential vocational schools.

The law restricts the age of students who may attend residential vocational schools that are constructed and operated with Federal funds. Students must be at least 15 and not over 21 years of age at the time of enrollment. Since residential vocational schools are usually at the postsecondary level, and many students are over 21 years of age, States have difficulty in meeting these Federal requirements. Accordingly, most States use State and local funds for building residential vocational schools, and do not report these expenditures to the Vocational Education Data System.

## CONTRACTING FOR VOCATIONAL EDUCATION

Section 120(b)(1) states that Federal funds may be used for providing vocational training through arrangements with private vocational training institutions. This is allowable "where such private institutions can make a significant contribution to attaining the objectives of the State

Plan, and can provide substantially equivalent training at a lesser cost or can provide equipment or services not available in public institutions . . . ."

Eight States and one Territory spent a total of $3,286,487 for contracted services in fiscal year 1979. Federal funds of $211,348 were spent which is 6.4 percent of the total amount. These figures represent a slight increase from fiscal year 1978. In several of the States the funds were used for providing vocational training at private cosmetology schools.

# SUBPART 3.  PROGRAM IMPROVEMENT AND SUPPORTIVE SERVICES

## Introduction

Subpart 3 Section 130 authorizes States to fund activities and projects which will improve their vocational education programs. Under Subpart 3, States are authorized to fund six functions. research, exemplary and innovative programs, curriculum development, vocational guidance and counseling, personnel training, and projects to overcome sex bias. The first three functions must be funded by contract. Vocational guidance and counseling funds may be awarded by contract for statewide services or distributed by formula to individual eligible recipients. Personnel training and grants to overcome sex bias may be funded by grant award. States may also use Subpart 2 and Subpart 3 funds for State and local administration. This use of funds is discussed in the section entitled "State and Local Administration."

State program improvement activities include research, exemplary and innovative programs and curriculum development. They are administered by State-established Research Coordinating Units (RCU's). Each RCU implements a 5-year program improvement plan which addresses State priorities. The plan must include procedures which will insure that the findings and results of the State's program improvement activities are disseminated throughout the State in a coordinated manner. In addition, no contract may be made for research or curriculum development unless it is probable that improved teaching techniques or curriculum materials will be used in a substantial number of classrooms within 5 years.

The RCU must forward two copies of the abstract and final report of each program improvement project (Sections 131, 132, and 133) to the National Center for Research in Vocational Education (NCRVE). The National Center collects data on these State program improvement projects and publishes two documents, Resources in Vocational Education and Current Projects in Vocational Education--State-Administered Projects, which list all State projects. Information on promising practices are thus made available to educators nationwide.

Tables 7-10, prepared by the National Center for Research in Vocational Education, show the recipients, target level, problem areas, and products of the State-administered program improvement projects in fiscal year 1980. Research, exemplary and innovative programs, and curriculum development projects are combined together in these tables. Over half of the projects were completed by 4-year colleges, universities, or local education agencies, and these institutions received 64.4 percent of the total obligated Federal funds. Projects addressed all grade levels, elementary through postsecondary, and over one-third were for curriculum management or development. Over 40 percent of the obligated Federal funds were used to develop curriculum and instructional products.

**TABLE 7. State-Administered Program Improvement Projects in FY 1980, VEA Section 130--Recipients**

| Institution or Agency | Number of Projects | Obligated Federal Funds | Percent of Funding |
|---|---|---|---|
| 4-Year college/university | 283 | $ 8,831,128 | 40.3 |
| Local education agency | 254 | 5,277,932 | 24.1 |
| Research center | 74 | 2,769,595 | 12.6 |
| 2-Year college (junior college, technical school, community college) | 73 | 1,945,057 | 8.9 |
| Intermediate education agency | 39 | 1,664,504 | 7.6 |
| Other | 23 | 561,279 | 2.6 |
| State education agency | 37 | 488,263 | 2.2 |
| None/information not available | 8 | 175,242 | 0.8 |
| Private business | 3 | 123,763 | 0.6 |
| Professional association | 2 | 55,985 | 0.3 |
| TOTALS | 796 | $21,892,748 | 100.0 |

National Center for Research in Vocational Education, January 1981

**TABLE 8. State-Administered Program Improvement Projects in FY 1980, VEA Section 130--Target Level**

| Educational Level | Number of Projects | Obligated Federal Funds | Percent of Funding |
|---|---|---|---|
| Secondary and postsecondary (10-14) | 257 | $ 7,448,580 | 34.0 |
| Secondary (7-12) | 286 | 6,976,451 | 31.9 |
| Postsecondary and adult (13-adult) | 141 | 3,294,606 | 15.1 |
| Information not available | 75 | 2,534,027 | 11.6 |
| Elementary and secondary (K-12) | 35 | 1,608,485 | 7.3 |
| Elementary (K-6) | 2 | 30,599 | 0.1 |
| TOTALS | 796 | $21,892,748 | 100.0 |

National Center for Research in Vocational Education, January 1981

## TABLE 9. State-Administered Program Improvement Projects in FY 1980, VEA Section 130--Problem Areas

| Problem Area | Number of Projects | Obligated Federal Funds | Percent of Funding |
|---|---|---|---|
| Curriculum management, curriculum development procedures | 287 | $ 7,784,581 | 35.6 |
| None/information not available | 199 | 5,731,972 | 26.2 |
| Special needs (handicapped, gifted, disadvantaged) | 81 | 2,650,847 | 12.1 |
| Planning, data & accountability | 66 | 1,921,000 | 8.8 |
| Equity, civil rights | 31 | 924,477 | 4.2 |
| Guidance for careers, vocations | 23 | 571,104 | 2.6 |
| Other Federal priority | 28 | 518,695 | 2.4 |
| Administration of State or local vocational education agency | 27 | 481,872 | 2.2 |
| Basic skills | 14 | 443,525 | 2.0 |
| Urban, rural youth | 11 | 337,412 | 1.5 |
| Education to work transition | 17 | 310,752 | 1.4 |
| Availability, accessibility to adults | 12 | 216,511 | 1.0 |
| TOTALS | 796 | $21,892,748 | 100.0 |

National Center for Research in Vocational Education, January 1981

TABLE 10. State-Administered Program Improvement Projects in FY 1980, VEA Section 130--Products

| Primary Product/Outcome | Number of Projects | Obligated Federal Funds | Percent of Funding |
|---|---|---|---|
| Curriculum and instructional products | 306 | $ 8,818,426 | 40.3 |
| Personnel training (inservice) | 124 | 3,937,804 | 18.0 |
| Evaluation and assessment | 118 | 2,834,017 | 12.9 |
| Technical reports and monographs | 122 | 2,622,770 | 12.0 |
| Program models & feasibility studies | 61 | 1,341,480 | 6.1 |
| Personnel counseling | 28 | 741,817 | 3.4 |
| Management and policy information | 12 | 665,932 | 3.0 |
| Placement | 17 | 597,278 | 2.7 |
| Other | 4 | 294,874 | 1.2 |
| Consortia and networks | 4 | 38,350 | 0.4 |
| TOTALS | 796 | $21,892,748 | 100.0 |

National Center for Research in Vocational Education, January 1981

State supportive services include vocational guidance and counseling and personnel training. In addition, authority is included in Subpart 3 for grants to overcome sex bias. Because States are not required to submit abstracts and subsequent reports to the National Center for these three sections, there is no detailed information available on the supportive services activities being conducted in the States and Territories. Information on the supportive services is being obtained, however, through the Management Evaluation Reviews for Compliance/Quality (MERC/Q's) and the State Plans and Accountability Reports for Vocational Education.

## RESEARCH

Research that improves the quality of vocational education is an important element in any State's program improvement efforts. Development and testing of curriculum materials, applied research in diverse areas, and experimental, developmental, and pilot programs were among the activities funded in fiscal year 1980. The 57 States and Territories obligated $7,333,695 for 265 research projects, with each project averaging $27,674 with a range from $1,500 to $90,391.

In a fully-articulated program improvement system, research is the basis upon which the whole system depends. The results of research are used to develop curriculum which is then tested in exemplary and model programs. Next comes preservice and inservice training to acquaint teachers with the new techniques or materials. Finally, programs are implemented in regular classrooms. This process takes several years to complete. Since 1980 was the third year of implementation of the Vocational Education Act, as amended in 1976, no data is available yet to show classroom results of research expenditures.

## EXEMPLARY AND INNOVATIVE PROGRAMS

Exemplary and innovative programs are intended to develop high quality vocational education programs, especially for urban centers and rural areas. The programs may also provide effective vocational education for persons with limited English proficiency, correlate vocational education opportunities with current and projected labor market needs, and broaden occupational aspirations and opportunities for youth, with emphasis upon youths who have academic, socio-economic, or other handicaps. The focus in 1980 was on energy-related programs, competency-based education, and special needs students.

**In fiscal year 1980, $6,193,739 were obligated by the 57 States and Territories to fund 230 projects. The average funding level for each exemplary and innovative project was $26,929, with a funding range of $2,159 to $52,000.**

## CURRICULUM DEVELOPMENT

**The majority of the States' program improvement monies are spent on curriculum development. In fiscal year 1980, the 57 States and Territories obligated $8,365,314 to fund 301 curriculum development projects with an average funding level per project of $27,792. The funding range was from $4,593 to $359,128.**

To meet their curriculum development needs, many States formed curriculum development consortia. Eighteen States are members of the Vocational Technical Education Consortium of States (V-TECS). The federally funded Midwest Curriculum Coordination Center, located in Oklahoma, inspired the Mid-America Vocational Curriculum Consortium of 12 States. The Interstate Distributive Education Curriculum Consortium (IDECC) is supported by 22 State vocational education agencies. The consortium approach to curriculum development and dissemination helps States share in the development of mutually needed curriculum materials for teachers and students. This helps States use their limited resources most effectively. The focus in 1980 was on energy-related programs, competency-based curriculum, and special needs students.

## GUIDANCE AND COUNSELING

The purpose of vocational guidance and counseling assistance is to improve each State's vocational education programs by providing support for vocational development guidance and counseling programs, services, and activities. These State programs are mandated under Section 134 of the Act (program improvement and supportive services). This section is unique in that each State is required to expend a minimum of 20 percent of its Subpart 3 allocation for these purposes. No other part of Subpart 3 carries any such mandate, confirming the importance of the guidance and counseling support services for improving vocational education as a whole.

During fiscal year 1979, total expenditures under Section 134 were $216,325,517 of which $41,148,266 were Federal funds and $175,177,251 comprised the State and local contributions. Compared to the previous year, the Federal funding increased by 72 percent and the State and local by 63 percent.

The Federal VEA monies allocable under Section 134 support any or all of the following activities: (a) initiation, implementation, and improvement of high quality vocational guidance and counseling programs and activities; (b) vocational counseling for children, youth, and adults, leading to a greater understanding of educational and vocational options; (c) provision of educational and job placement programs and follow-up services for students in vocational education and for individuals preparing for professional occupations or occupations requiring a baccalaureate or higher degree; (d) vocational guidance and counseling training designed to acquaint guidance counselors with the changing work patterns of women, ways of effectively overcoming occupational sex stereotyping, and ways of assisting girls and women in selecting careers solely on their occupational needs and interests, and to develop improved career counseling materials which are free; (e) vocational and educational counseling for youth offenders and adults in correctional institutions; (f) vocational guidance and counseling for persons with limited English proficiency; (g) establishment of vocational resource centers to meet the special needs of out-of-school individuals, including individuals seeking second careers, individuals entering the job market late in life, handicapped individuals, individuals from economically depressed communities or areas, and early retirees; and (h) leadership for vocational guidance and exploration programs at the local level.

Any of the above activities may be offered by a single eligible recipient or may be operated on a statewide basis by the State Board. Any funds generally made available to all eligible recipients must be disbursed under a federally approved funds distribution formula; while in the latter case, request-for-proposals are issued, and contracts are competitively awarded. Nationally, approximately half of the Federal funds are expended via each of these two methods. Because of excessive data burden, the Vocational Education Data System does not include such precise information; nor does it reveal how Section 134 monies are allocated for the various purposes outlined above.

As an example of typical programs, one State, during the 1980-81 school year, expended several hundred thousand dollars of VEA monies--supplemented by State and local funds--to support 28 exemplary career counseling and guidance projects. Nine of these projects were designed to increase career counseling for adults; ten were developed to increase career counseling and guidance services for handicapped and disadvantaged persons, seven concentrated on producing local career information materials, and two created comprehensive career guidance and counseling plans. Another State conducted workshops for teams of counselors, teachers, and administrators, aiding them in acquiring skills in planning, developing and implementing career guidance programs, including student followup and program evaluation elements.

The Department of Education also funds vocational guidance and counseling projects as part of the Projects of National Significance which are described more fully in that section of this report. Past projects included the development of a Cooperative Rural Career Guidance System and a Guidance Team Training Program with Emphasis on Guidance for Vocations and Learners with Special Needs. Fiscal year 1981 projects include continuation of a project entitled, "Legislative Provisions for the Improvement of Guidance Programs and Personnel Development," and a recently issued RFP designed to establish and maintain guidance as a continuing program of national significance.

It should also be noted that guidance and counseling activities may be funded with VEA monies under parts of the Act other than Section 134; notably, placement services, support services for women, and programs for displaced homemakers and other special groups--all of which are supportable with Subpart 2 monies. Additional information concerning guidance and counseling activities will be found in the sections of this report dealing with these programs.

## PRESERVICE AND INSERVICE TRAINING

Subpart 3 provides for preservice and inservice training for instructors of vocational education. Section 135 prescribes that this training shall "improve the qualifications of persons serving or preparing to serve in vocational education programs, including teachers, administrators, supervisors and vocational guidance and counseling personnel . . . ."

In fiscal year 1979 there were 327,142 teachers in the Nation and its outlying areas. This is a marked decrease from the fiscal year 1978 reported total of 354,175. The considerable variation is due largely to the different data collection methods used in those two years; the Vocational Education Data System (VEDS) was not operational in 1978 and collected the 1979 data only. In addition, in both years not all States and outlying areas reported. Chart G lists the number of teachers in vocational education since 1972.

The Federal monies expended by States to train their teachers in fiscal year 1979 totaled $22,560,742, up dramatically from the fiscal year 1978 total of $11,340,923. The ratios of State and local to Federal expenditures for such training in fiscal year 1978 and fiscal year 1979 were 1.8:1 and 1:1, respectively. The increase in funding undoubtedly reflects a greater commitment to teacher training.

# Teachers In Vocational Education (VEA)

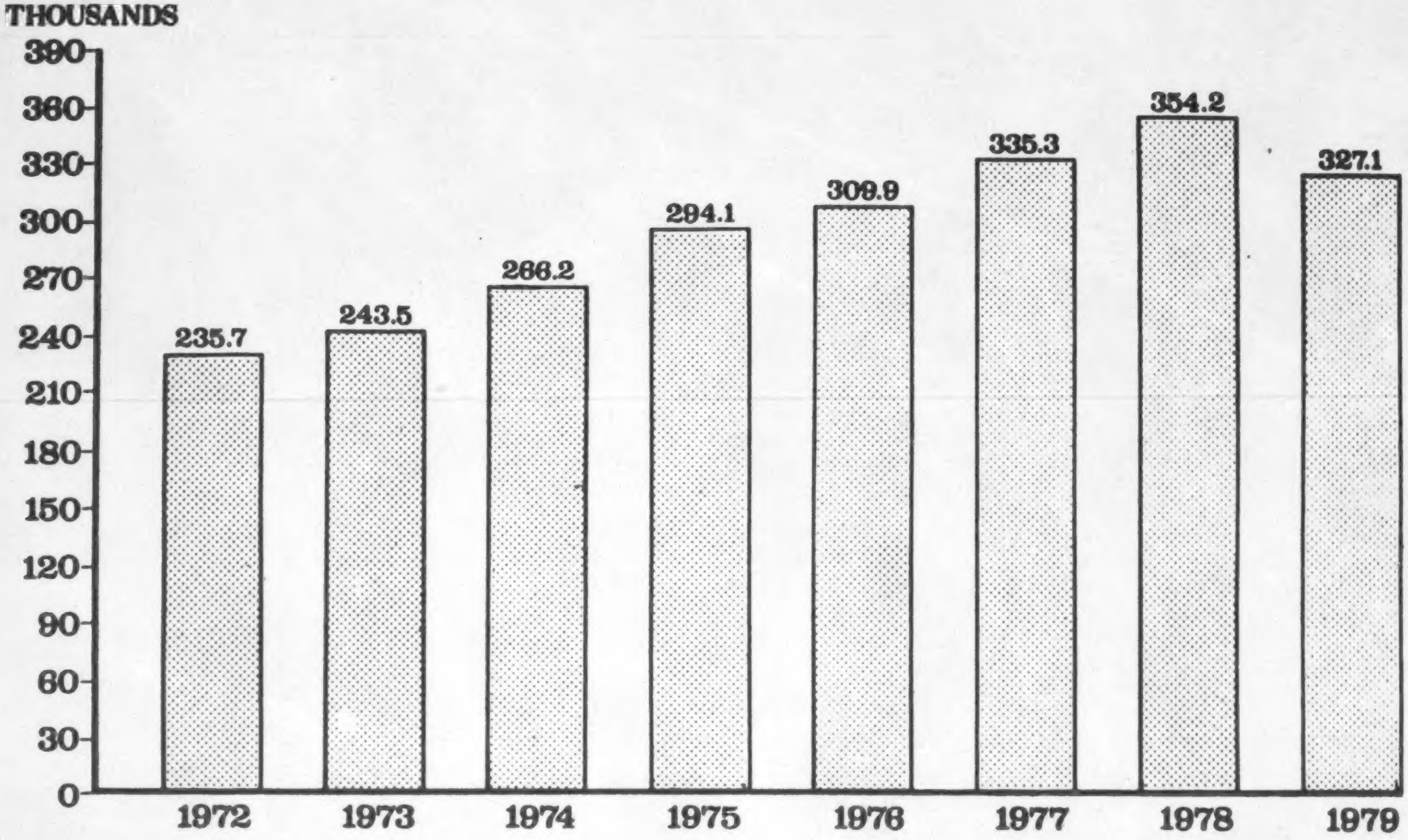

Chart G

Source: NCES/VEDS FY-'79

Personnel training courses were conducted by authorized colleges and universities which offered graduate and undergraduate programs leading to professional teaching certification or State licensing. Many of these institutions offered noncredit programs for the orientation of new teachers coming from business and industry into the vocational education teaching role. Other activities included state-level workshops for teachers and statewide vocational conferences. All of these programs upgrade and retrain current and new teachers to improve the quality of instruction in vocational education.

## GRANTS TO OVERCOME SEX BIAS

Funds are available under Section 136 to support activities which show promise of overcoming sex stereotyping and bias in vocational education. Grants may be made for research, curriculum development, or staff training which meets these objectives.

The sex bias grants have been used to integrate sex equity into all vocational education programs, including guidance and counseling, personnel development, and displaced homemaker programs. The most common types of programs are exploratory projects for adult women designed to introduce these women to nontraditional occupations. Such projects usually include discussions of career exploration and awareness. There is an emphasis on meeting the needs of the minority, disadvantaged, handicapped, and rural women in these programs.

As mentioned in the section on sex equity personnel, State implementation of programs to overcome sex bias has varied. Many States do not have programs in this area. In fiscal year 1979, 26 States and 2 Territories funded grants to overcome sex bias. This was an increase, however, from 18 States in 1978. In fiscal year 1979, a total of $2,174,745 was spent in this area. Federal funds comprised 87.2 percent of this total. Overall expenditures decreased markedly from the $4,370,369 spent in fiscal year 1978. At that time, Federal expenditures were but 27 percent of the total. State and local expenditures decreased 91 percent from 1978 to 1979.

It is unclear why States are removing State and local funds from this optional program. States often make these funds available as incentives to encourage eligible recipients to develop programs to overcome sex bias. This would account for the increase in the number of States funding these programs, but does not account for the decrease in State and local funding. Even though expenditures decreased, half the States did fund programs to overcome sex bias to help achieve the goal of equal educational opportunity for both males and females.

One indicator of effectiveness of this program might be an increase in the enrollment of males and females in nontraditional occupations. The fact that little overall change has occurred in these enrollment figures was noted earlier. It should be remembered that data is only available for one year after the implementation of Public Law 94-482. A review of enrollment data for 1980 and 1981, when it is available, will better indicate any enrollment changes occurring in vocational education since the adoption of the Vocational Education Amendments of 1976.

It is important to reiterate that those States that have funded programs to overcome sex bias and displayed institutional commitment to promote sex equity for female and male students have made the greatest strides in changing enrollment patterns.

# SUBPART 4. SPECIAL PROGRAMS FOR THE DISADVANTAGED

## SPECIAL PROGRAMS FOR THE DISADVANTAGED

Subpart 4 Section 140 contains a separate authorization for 100 percent Federal funding of special programs for the disadvantaged. Funds must be used in areas with a high concentration of youth unemployment and school dropouts, and may be used to pay the full cost of vocational programs for these disadvantaged persons.

In fiscal year 1979 there were 152,970 persons enrolled in special programs for the disadvantaged. This is a slight decrease from the fiscal year 1978 enrollment which was 156,829. Expenditures totaled $29,767,637 in fiscal year 1979, including $17,539,604 or 58.9 percent Federal funds. This is approximately the same as in fiscal year 1978, when total expenditures came to $28,335,293 (60.5 percent of which, or $17,133,184, was Federal). Almost two-thirds of the States and Territories contributed State and local funds for these programs.

There are some exciting and useful programs and activities in operation which have enabled the disadvantaged to participate in regular vocational education classes. For example, paying remedial instructors' salaries, allowing overtime for vocational teachers, providing special instructional materials, or providing store-front rentals away from the school environment, have helped disadvantaged students overcome academic or economic handicaps and participate in the regular vocational education programs. In a few situations, special classes for dropouts have been set up. Vocational instruction is also being offered in correctional institutions. All of these activities have helped the disadvantaged receive appropriate vocational education training.

# SUBPART 5. CONSUMER AND HOMEMAKING

## CONSUMER AND HOMEMAKING

Federal funds for consumer and homemaking education are authorized and allocated to the 57 States and Territories on a formula grant basis according to Subpart 5 Section 150. Funds are to be used solely for (1) educational programs and (2) ancillary services and activities which assist in preparing males and females, youth and adults for the occupation of homemaking. From the Smith-Hughes Act of 1917 to the Vocational Education Act of 1963, and the subsequent amendments of 1968, 1972, and 1976, this evolving legislation has focused upon developing occupational competencies. These skills will meet the economic, social, and cultural needs of persons in all components of society. By improving home environments, the quality of individual and family life is improved, and the individual's potential employability is enhanced.

A total of 3,658,475 students, 20.6 percent of which were males, were served in all programs under Section 150 during fiscal year 1979. The enrollment trend shows a continuous increase since the 1972 level of 3,165,732 students. Consumer and homemaking education programs have the largest minority enrollment compared to other vocational education programs, and are reported to have one of the higher enrollments of handicapped students also.

Special provision is made in Section 150(d) that at least one-third of the Federal funds made available to each State under Section 150 is to be used for persons in economically depressed areas, or areas with high rates of unemployment. Programs in these areas are designed to assist consumers and to help them improve home environments and the quality of life. In fiscal year 1979 approximately 47.5 percent of the total funds for consumer and homemaking education were directed to persons living in economically depressed areas.

In fiscal year 1978, Federal and State and local funding of all programs totaled $428,899,198, with $207,783,169 of the expenditures being used for persons in economically depressed areas. In fiscal year 1979 consumer and homemaking expenditures totaled $479,198,959 (Federal: $40,574,015).

In addition to serving families and individuals, specific national concerns have been addressed by consumer and homemaking education. These include, but are not limited to, consumer education, nutrition education, parenthood and family life, management of resources, child abuse and neglect, drug/alcohol abuse, family violence, care of the aged, inflation as related to family economics, and individual productivity in home and work roles. Consumer and homemaking education is a comprehensive program that provides benefits in many diverse areas.

# NATIONAL VOCATIONAL PROGRAMS

## SUBPART 1. GENERAL PROVISIONS

# NATIONAL OCCUPATIONAL INFORMATION COORDINATING COMMITTEE

The Education Amendments of 1976, Section 161(b)(1), and the Comprehensive Employment and Training Act (CETA) Amendments of 1978 required that a National Occupational Information Coordinating Committee (NOICC) be established. The Departments of Education and Labor award an annual $3-5 million each to NOICC. In fiscal year 1980 the U.S. Office of Education contributed $3 million and the U.S. Department of Labor contributed $5 million.

A major portion of NOICC's funding goes to State Occupational Information Coordinating Committees (SOICC's). In 1980, $5.2 million of NOICC's $8 million budget was allocated for Basic Assistance Grants to SOICC's. NOICC also awards special purpose grants to SOICC's to conduct research that has national significance and affects the SOICC network.

A major objective of both NOICC and SOICC's is the development and use of an Occupational Information System (OIS) in each State. An OIS will assist State and local administrators of vocational education in planning instructional programs that better meet labor market needs. An OIS also assists teachers, counselors, and students in determining occupational career goals.

As an initial step in setting up a national Occupational Information System, NOICC published "A Framework for Developing An Occupational Information System." NOICC further expanded and refined the OIS concept by including strategies and techniques for implementing the system in Volumes I, II, and III of the OIS Handbook. Two major workshops were conducted to discuss the Handbook with representatives of State vocational education, CETA, vocational rehabilitation, and employment security agencies. By the end of fiscal year 1980, 49 States had implemented Occupational Information Systems.

To further assist SOICC's in developing statewide Occupational Information Systems, NOICC funded the development of a publication entitled Vocational Preparation and Occupations (VPO). This publication contains descriptions of five major occupational classification systems, and shows the correlation of data collected under one system against data collected under the other systems.

NOICC has responded to the mandate to give special attention to the labor market information needs of youth by funding Career Information Delivery Systems (CIDS). Using the concept of the Career Information System demonstration program at the Department of Labor, NOICC awarded CIDS grants to 15 State Occupational Information Coordinating Committees. States have been very enthusiastic in implementing the CIDS concept. The general objective of CIDS is to make occupational and education information available to persons who are making career choices and searching for jobs, especially students and out-of-school youth. To the extent possible, CIDS uses information that is obtained from the State's Occupational Information System.

To assure further development of Career Information Delivery Systems, NOICC has contracted with the National Governors' Association to provide a 2-year program of technical assistance to SOICC's for planning and managing career information systems. NOICC is also supporting other research projects to determine the benefits users receive from CIDS, and to evaluate how effective alternative delivery systems are in providing career information.

NOICC is also involved in activities that promote coordination and communication between Federal programs that provide occupational information and training opportunities for target populations. The committee co-sponsored a National Planning Conference on Occupational Information for Handicapped Individuals with the Rehabilitation Services Administration. NOICC has also cooperated with the Interdepartmental Committee on Employment Opportunities and Training Needs in Agribusiness to encourage and help develop state-level projections of employment demand in agribusiness occupations.

To exchange information with SOICC's and other State and Federal agencies, NOICC publishes a newsletter, disseminates a memorandum series, conducts symposiums for Federal officials, and convenes special task forces and resource panels. For example, a 1980 NOICC symposium was held jointly with the Conference of State Directors of Vocational Education.

In fiscal year 1980, as in previous years, NOICC helped bring together widely separated data collecting systems. NOICC supplied useful occupational data to planners and administrators of vocational education, and career information to students and youth. NOICC has many plans for continued progress in these areas for the future.

## STATE OCCUPATIONAL INFORMATION COORDINATING COMMITTEES

Section 161(b)(2) requires each State and Territory receiving vocational education and Comprehensive Employment and Training Act (CETA) funds to create a State Occupational Information Coordinating Committee (SOICC). The purpose of the SOICC is to develop systems that would provide occupational information. The CETA Amendments of 1978 subsequently required SOICC's to develop career information systems for youth.

In fiscal year 1980, all SOICC's (57) were operational. They received $5.2 million in Basic Assistance Grants from the National Occupational

Information Coordinating Committee (NOICC), and over $3 million from other sources, primarily special-purpose grants from NOICC, and State funds from such sources as vocational education and CETA.

Most of the SOICC's expenditures focused on developing Occupational Information Systems (OIS's) and refining data components. In fiscal year 1980, 49 SOICC's spent funds for these purposes. A NOICC survey of SOICC annual program plans indicated that almost half of all SOICC expenditures were spent in this area. When completed, an OIS will provide more accurate occupational information to vocational education, as well as to other State agencies. This information includes supply and demand data, a supply/demand interface, occupational characteristics, and other related information. SOICC expenditures were divided between the establishment of an OIS, including user needs assessments, feasibility studies, data source inventories, and the design of the OIS itself, and improvements in existing data components.

The second largest category of SOICC expenditures was disseminating career information. Included in this category are funds granted to 15 SOICC's by NOICC for the specific purpose of establishing Career Information Delivery Systems (CIDS). In fiscal year 1980, $1,590,000 was spent on disseminating career information, of which $975,000 was spent on Career Information Delivery Systems. When these systems are completed, they will provide career information to youth on topics such as occupational demand, occupational characteristics, and education and training opportunities within a State. This information will help students make informed career choices, and thus improve their transition from school to work. The remainder of the funds expended by SOICC's in this category was used for developing and disseminating publications serving the same purpose, such as occupation-related information, occupational monographs, and supply and demand reports.

Another important category of SOICC expenditures was that of providing information and training to data users about SOICC, its expenditures and functions. In fiscal year 1980, $760,000 was spent in this area, primarily for conferences, training materials, manuals, and publications such as brochures on SOICC services, fact sheets, and newsletters. Disseminating such information made data users from various agencies, including vocational education, more aware of the SOICC's functions, and the potential uses of the information that the SOICC was helping to provide.

SOICC's are spending funds in areas which best fulfill the requirements of the law and meet the needs of producers and users of occupational data. SOICC's are developing both Occupational Information Systems and Career Information Delivery Systems in order to provide more accurate data for planning occupational programs at a State, local, or individual level. SOICC's are also promoting greater awareness about these systems through conferences and publications. These activities help users make better decisions because more information about occupational supply and demand is now available.

# NATIONAL ADVISORY COUNCIL ON VOCATIONAL EDUCATION

The National Advisory Council on Vocational Education (NACVE) was created through amendments made in 1968 and 1976 to the Vocational Education Act of 1963. Its members are appointed by the President to advise him and the Secretary of Education on the administration and operation of vocational education. A major function of the Council is to consult with the National Commission for Employment Policy on identification of the vocational education and employment training needs of the Nation and assess the extent to which the needs are being met.

From about 40 different descriptions used to categorize recommendations developed by the 57 State and Territorial advisory councils on vocational education, NACVE identified 10 predominating issues and concerns that clearly emerge from the 1979 State Advisory Council Annual Reports. The 10 significant issues and concerns are the following: funding, leadership and professional development, coordination between vocational education and CETA, equipment and facilities, data/management information systems, program access, planning, program relevance and curriculum development, guidance and counseling, and image and awareness of vocational education. Most of these recommendations were also made in the 1978 annual reports.

The National Advisory Council issued two reports in 1980. One was a position paper on the "Education of Nurses," a rising national concern. The second report was entitled, "Increasing Sex Equity," which describes the impact of the 1976 Vocational Education Amendments on sex equity in vocational education.

## SUBPART 2. PROGRAMS OF NATIONAL SIGNIFICANCE

## Introduction

The purpose of the discretionary programs of national significance is vocational education program improvement. Program improvement needs which are deemed to be of national significance are addressed through competitively awarded contracts and grants. There is a wide range of program improvement activities: applied studies, curriculum development, improved instructional practice, guidance and counseling, personnel development, occupational information systems, and demonstration and dissemination of findings and products. These nationally significant program improvement efforts form the cornerstone of a coordinated Federal, State, and local strategy for improving the effectiveness and quality of vocational education on a nationwide basis. The information, products, materials, and trained personnel produced by these programs are used at the State and local levels. State program improvement and supportive service funds (Section 130) are used to disseminate, adapt, and demonstrate the products and materials emanating from these national programs. This integrated program improvement system helps States and Territories improve the quality of their vocational programs.

During fiscal year 1977 and fiscal year 1978, the Programs of National Significance, as required by law, received five percent of the Basic Grant funds appropriated for the States. In fiscal year 1979 and fiscal year 1980, however, the appropriations for the Programs of National Significance were reduced to 10 million dollars. Three million dollars of the appropriations were allocated to the National Occupational Information Coordinating Committee (NOICC) in fiscal year 1979 and fiscal year 1980. (Refer to the section entitled "National Occupational Information Coordinating Committee" for information on this use of Federal funds.)

More specifically, the Programs of National Significance support the following activities:

The National Center for Research in Vocational Education
The Curriculum Coordination Centers,
The Projects of National Significance,
The Graduate Leadership Development Fellowships,
The Vocational Education Teacher Certification Fellowships, and
The National Occupational Information Coordinating Committee (NOICC), and the 57 State Occupational Information Coordinating Committees (SOICC's)

## NATIONAL CENTER FOR RESEARCH IN VOCATIONAL EDUCATION

The National Cener for Research in Vocational Education (NCRVE) was authorized by Section 171(a)(2). It responded to the need for national vocational education research and development which can address vocational education problems of national significance. It then distributes its own, as well as State-produced, program improvement products and information to the States, colleges and universities, technical institutes, and professional and related organizations. It acts as a clearinghouse for the State-initated program improvement materials and products. The Center also provides professional training to approximately 1,000 vocational education personnel per year through its In-residence Program, Advanced Study Center, and National Academy for Vocational Education. The Center participates in evaluating State and local programs, and finally, in providing information for national planning.

In fiscal year 1980, the Center was supported with approximately $5.5 million. Among the many products the Center produced was the Urban/Rural Policy Study. National socioeconomic data was gathered for all counties with less than 10,000 population and for cities with over a half million population. Geographic areas for intensive study were high risk areas based on the unemployment rate, per capita income, and number of families below the poverty level. The Urban/Rural Policy Study is being used by national and State policy makers who are responsible for improving delivery of quality vocational education to "high risk" geographic areas.

The Office of Vocational and Adult Education's monitoring plan for the Center includes monthly site visits, review of reports, and two formal evaluations--a mid-contract evaluation and an end-of-contract evaluation. The mid-contract evaluation took place in Columbus, Ohio, during August 4-8, 1980. It was designed to provide information about the Center's first two and one-half years of operation. More specifically, the review was intended to provide the Office of Vocational and Adult Education (OVAE) with information concerning the following:

(1) the quality of both processes and products of the contracted scope of work;

(2) the effectiveness and efficiency of the organization's management; and

(3) the degree of contractual compliance.

The evaluation focused on the Center's management operations and on the six functions, described above, around which the Center's congressionally mandated responsibilities are organized. The evaluation assessed the Center's operations by examining the strengths and weaknesses of its processes, activities, and products. This evaluation will assist the Center by identifying areas where improvements can be made and recognizing areas of exceptional performance. The data and results of this mid-contract review will enable the Center to serve the vocational education community more effectively.

The following are the findings and recommendations from the mid-contract evaluation and from OVAE's monitoring of the Center.

## A. Findings

### 1. Quality

- The quality of the Center's products is high.
- Extensive field involvement in the development of products contributes significantly to the relevancy of the products developed.
- The product development process is systematic, efficient, and productive.
- Product impact and usefulness appear to be good.
- Product dissemination could be extended to a greater diversity of audiences.
- The staff appears to be highly qualified, and to bring diverse areas of expertise to the Center.
- The Center is underfunded in terms of the outcomes desired and potential of the organization.

### 2. Management

- The management system is well organized to efficiently and effectively develop numerous products on a tight schedule.
- Management has established, and is maintaining, both an internal evaluation system and a product review and evaluation system to insure quality in the products developed and in the services provided.
- An effective communication system is maintained among the staff.
- Staff morale appears to be high.
- Management has implemented and is maintaining a staff development plan.

- Management is using both its staff and fiscal resources effectively.
- Management is able to obtain and maintain both financial and programmatic support from the Ohio State University.

### 3. Compliance

- The Center is complying with both the letter and the intent of the scope of work of the contract.
- The Center has excellent accountability for both performance and financial areas.
- The Center's operations are restricted by operating under a contract with the accompanying requirements.
- A grant is a more appropriate funding mechanism for the Center than a contract.

## B. Recommendations

### 1. Quality

- Consideration should be given to funding longer term projects and efforts.
- Consideration should be given to allowing the Center more flexibility for determining both study topics and research procedures.
- Consideration should be given to continuing the extensive field involvement which the Center now maintains in the development of its products.
- Consideration should be given to expanding the attention given to targeted and diverse audiences.
- Consideration should be given to increasing the funding level of the Center.

### 2. Management

- Consideration should be given to continuing the productive sponsor-contractor relationship.
- Consideration should be given to developing procedures which would allow the Center greater flexibility, given the past performance and maturity of the organization.

- Consideration should be given to continuing the staff development efforts.
- Consideration should be given to continuing the product review and evaluation system.

3. Compliance

- Consideration should be given to using a grant rather than a contract during the next award cycle.

## CURRICULUM COORDINATION CENTERS

There are six regional Curriculum Coordination Centers (CCC's) funded by contracts according to Section 171(a)(1). They provide an orderly system for sharing interstate development and dissemination of curriculum and instructional materials. The Centers focus on national priority areas as an integral part of their services, and respond to the needs of their respective consortium of States. Information sharing through dissemination and diffusion, technical assistance, and inservice training are emphasized. In fiscal year 1980, the Centers received approximately $500,000 Federal funding to accomplish their goals.

During 1980, each Center reported dollars saved by the adoption/adaptation of CCC-identified materials. In total, 765 curriculum-related products developed by other States were adopted/adapted at a savings of $3,973,200 for the entire network.

CCC services have also resulted in increased interstate development activities. These usually concern jointly-needed curriculum which States develop and share. A total of 84 interstate development activities were implemented in 1980 throughout the 57 States and Territories.

Inservice training is another feature of the CCC Network. Training sessions were conducted for a cross section of clients involved in vocational education including teachers, counselors, supervisors, CETA staff, business, industry, labor, and others from both public and private schools. Workshops covered topics such as energy education, sex equity, productivity, special needs curriculum, and others. A total of 349 workshops involving 14,499 participants were conducted throughout the CCC Network during 1980.

Conducting searches is another valuable function of the CCC's. Many teachers, administrators, and others use this service to identify vocational materials to be used in the classroom, at workshops, or as a basis for curriculum development efforts. Approximately 3,000 searches were conducted by all six Centers in 1980.

Disseminating curriculum materials and information to the vocational education community is an ongoing service of the CCC Network. Materials such as curriculum guides, resource guides, special bibliographies, newsletters, catalogs, brochures, and films are disseminated on a regular basis. A total of 391,442 items were disseminated by the entire Network reaching approximately 224,000 constituents.

Requests for CCC consultation or technical assistance have more than doubled in the last year. There were 3,950 such requests in 1980. Although most of these requests were handled by telephone or mail, 48 technical assistance visits were made to States and Territories by CCC staff in 1980.

As can be seen by the many activities listed and the increasing use of the Curriculum Coordination Centers' services, this Network is a primary point of access for vocational education materials and information.

## PROJECTS OF NATIONAL SIGNIFICANCE

The Federal discretionary funding of the Programs of National Significance includes the funding of projects. The projects can include the same six areas as the State Program Improvement and Supportive Services: research, exemplary and innovative programs, curriculum development, vocational guidance and counseling, personnel training, and sex equity. Contracts for these projects are awarded competitively and range from one to three years in duration.

Federally contracted projects of national significance provide a basis for leadership needed to improve the quality of vocational education programs. These projects produce information for decisionmaking and policy concerning national problems. They also develop materials for occupational areas that are changing. The methods, practices, strategies, and products developed by these projects are specifically designed to improve the quality of instruction and administration. Students are thus better prepared to enter the job market or proceed to the next educational level required before job entry. Each project must have a dissemination plan which assures that vocational educators are kept informed of the progress and the outcomes of the project.

This program finances projects that improve access to and quality of vocational education for all persons, and specifically for minorities, females, disabled, and disadvantaged persons. Projects are funded to do the following: develop curricular materials for new and changing occupations, demonstrate new vocational education techniques and services for students, disseminate information about particular problems of special populations in vocational education, distribute new information and materials to vocational educators, and develop policies for more effective and efficient vocational education systems.

In fiscal year 1980, there were 41 ongoing projects of national significance in addition to the National Center for Research in Vocational Education contract and the six Curriculum Coordination Center contracts. There were 7 new contracts awarded in fiscal year 1980 totaling approximately $1,642,000. Examples of these funded projects include the following: field tests of vocational education curriculum materials, media presentations on mainstreaming the disabled, individual education plans for disabled students in vocational education, methods for credentialing women's life experiences, and effective mechanisms for coordinating vocational education programs. A complete list of all contracts follows.

## PROJECTS OF NATIONAL SIGNIFICANCE

### Ongoing Projects in Fiscal Year 1980

| Project Title | Contractor | Funding Cycle |
|---|---|---|
| Vocational Needs of Adult Women Offenders | One America, Inc.<br>Washington, D. C. | 10/01/78-<br>03/31/80 |
| Study of Vocational Education Research and Development Systems and Utilization of Products | The Network<br>Andover, Massachusetts | 10/01/78-<br>03/30/80 |
| Effective Mechanisms for Facilitating Coordination of Vocational Education Programs with the Youth Employment and Demonstration Projects Act of 1977 | Conserva, Inc.<br>Raleigh, North Carolina | 10/01/78-<br>03/30/80 |
| State Planning for Delivery of Vocational Education to Special Populations | Conserva, Inc.<br>Raleigh, North Carolina | 10/01/78-<br>06/30/80 |
| Assessment of Quality Vocational Education in State Prisons | System Sciences, Inc.<br>Chapel Hill, North Carolina | 10/01/78-<br>03/30/80 |
| Legislative Provisions for the Improvement of Guidance Programs and Personnel Development | The Ohio State University Research Foundation<br>Columbus, Ohio | 10/01/78-<br>03/30/80 |
| Development and Criteria and Procedures to Measure the Extent of Implementation and the Effectiveness of Demonstration Projects in Vocational Education | Development Associates<br>Arlington, Virginia | 10/01/78-<br>03/30/80 |
| Modified Vocational Curriculum for the Handicapped | University of Wisconsin System<br>Madison, Wisconsin | 10/01/78-<br>05/31/80 |

| Project Title | Contractor | Funding Cycle |
|---|---|---|
| Armed Services Materials Conversion (Dental Assistant and Medical Assistant) | Development Associates, Inc.<br>Austin, Texas | 10/01/78-<br>03/31/81 |
| Accessibility to Vocational Education Facilities and Programs for Handicapped Persons | System Sciences, Inc.<br>Chapel Hill, North Carolina | 10/01/78-<br>02/28/81 |
| Field Testing Vocational Education Curriculum Specialist Materials | American Institutes for Research<br>Palo Alto, California | 10/01/78-<br>09/30/81 |
| Modularized Curriculum for Energy Conservation Technical Programs | Technical Education Research Center<br>Waco, Texas | 10/01/78-<br>09/30/81 |
| Standards for Industrial Arts Education Programs | Virginia Polytechnic Institute and State University<br>Blacksburg, Virginia | 10/01/78-<br>09/30/81 |
| Individual Education Plans for Handicapped Students in Vocational Education | CRC Education & Human Development, Inc.<br>Belmont, Massachusetts | 10/01/78-<br>09/30/81 |
| Credentialing Women's Life Experiences | Educational Testing Service<br>Princeton, New Jersey | 10/01/78-<br>09/30/81 |
| Preparing for Occupations | Family Training Center<br>Glasgow AFB, Montana | 03/12/79-<br>03/11/80 |
| Revision and Updating of Listing of Vocational Instructional Materials Available from Federal Agencies | Human Resources Management, Inc.<br>Washington, D. C. | 08/01/79-<br>07/31/80 |
| Develop a Policy Paper on Vocational Education Utilizing Known National and International Models | Coordinating Council for International Issues<br>Washington, D. C. | 10/01/79-<br>11/30/79 |

| Project Title | Contractor | Funding Cycle |
|---|---|---|
| Assessment of the Effectiveness of the Federally Mandated Set-asides in Vocational Education on Encouraging the Expenditures of State and Local Funds for the Set-asides Program Purposes | Kirschner Associates<br>Washington, D. C. | 10/01/79-09/30/80 |
| Identification and Development of Procedures for Facilitating Access to Employment through Vocational Education for Displaced Homemakers | Education Development Center<br>Newton, Massachusetts | 10/01/79-09/30/81 |
| Implementing Improved Vocational Agriculture/Agri-business Programs in Urban Schools | Conserva, Inc.<br>Raleigh, North Carolina | 10/01/79-06/30/81 |
| Media Presentations on Mainstreaming the Handicapped | WGBH Educational Foundation<br>Boston, Massachusetts | 10/01/79-09/30/80 |
| Developing Criteria for and Monitoring the Activities of I-E-L Action Councils to Bring Education and the Marketplace into Phase as a Research Basis for Immediate and Future Occupational Planning | Institute for Urban Affairs and Research, Howard University, Washington, D. C.<br>Huston-Tillotson College, Austin, Texas<br>Shaw College of Detroit, Detroit, Michigan<br>Elizabeth City State University, Elizabeth City, North Carolina | 10/01/79-12/31/80 |
| Youth Employment Program for Out-of-School Youth | National Council of Negro Women<br>Washington, D. C. | 10/01/79-02/28/81 |
| The NCNW Factory: A Concept to Develop Jobs and Business Opportunity in Rural Mississippi | National Council of Negro Women<br>Washington, D. C. | 10/01/79-03/05/81 |

| Project Title | Contractor | Funding Cycle |
|---|---|---|
| Development of a Catalog of Modifications and Adaptations of Vocational Education Equipment for Serving the Handicapped | University of Wisconsin<br>Madison, Wisconsin | 10/01/79-<br>03/31/81 |
| Verification and Implementation of Program Standards for Vocational Home Economics Education | University of Texas at Austin<br>Austin, Texas | 10/01/79-<br>09/31/81 |
| Evaluation of Industry-Education-Labor (I-E-L) Collaboration in Improving the Quality and Accessibility of Occupational Education | The National Manpower Institute<br>Washington, D. C. | 10/01/79-<br>03/31/81 |
| Vocational Education Personnel Development in the Pacific Basin Territories | University of Hawaii<br>Honolulu, Hawaii | 10/01/79-<br>03/31/81 |
| Development of Entrepreneurship Training Components for Vocational Education | American Institutes for Research<br>Palo Alto, California | 10/01/79-<br>03/30/82 |
| Analysis of the Allotment of Federal Vocational Education Funds | Applied Management Sciences<br>Silver Spring, Maryland | 10/01/79-<br>09/30/81 |
| Development of an Outreach Program to Attract Women into Male-Intensive Vocational Education Programs | Technical Education Research Centers, Inc.<br>Cambridge, Massachusetts | 10/01/79-<br>09/30/81 |
| Basic Skill Development Through Vocational Education | Cornell Institute for Occupational Education<br>Ithaca, New York | 10/01/79-<br>09/30/81 |
| Guidance Team Training with Emphasis on Guidance for Vocations and Learners with Special Needs | National Center for Research in Vocational Education<br>Columbus, Ohio | 10/01/79-<br>09/30/81 |

| Project Title | Contractor | Funding Cycle |
|---|---|---|
| Development of Safety and Health Instructional Materials | Technical Education Research Center<br>Waco, Texas | 10/01/79-<br>09/30/81 |
| Vocational Education Models for Linking Agencies Serving the Handicapped | University of Wisconsin<br>Madison, Wisconsin | 10/01/79-<br>09/30/81 |
| Identification of Issues Relating to the Role of Vocational Education in Serving Older Persons | Conserva, Inc.<br>Raleigh, North Carolina | 10/01/79-<br>04/30/81 |
| Identification and Dissemination of Model Programs for the Involvement of Vocational Education in Economic Development | American Vocational Association<br>Arlington, Virginia | 10/01/79-<br>01/31/82 |
| Procedures for Utilizing Volunteers to Improve Vocational Education in Urban Areas | Conserva, Inc.<br>Raleigh, North Carolina | 10/01/79-<br>09/30/82 |
| Development of Competency Measures for Vocational Skill Areas | American Institutes for Research<br>Palo Alto, California | 10/01/79-<br>09/30/82 |
| Development of Model Methods of Administration (MOA) for Office for Civil Rights Guidelines for Vocational Education | CRC Education and Human Development, Inc.<br>Belmont, Massachusetts | 11/01/79-<br>07/31/80 |
| The National Center for Research in Vocational Education | The Ohio State University<br>Columbus, Ohio | 01/16/78-<br>02/01/83 |
| Western Curriculum Coordination Center | University of Hawaii<br>Honolulu, Hawaii | 01/01/77-<br>12/31/79<br>03/01/80-<br>12/31/82 |

| Project Title | Contractor | Funding Cycle |
|---|---|---|
| East Central Curriculum Coordination Center | East Central Network/Illinois Vocational Curriculum Center Sangamon State University<br>Springfield, Illinois | 01/01/78-12/31/80<br>04/27/81-12/31/83 |
| Southeast Curriculum Coordination Center | Mississippi State University<br>Mississippi State, Mississippi | 01/01/77-12/31/79<br>03/01/80-12/31/82 |
| Midwest Curriculum Coordination Center | Oklahoma State Department of Vocational and Technical Education<br>Stillwater, Oklahoma | 01/01/78-12/31/80<br>04/27/81-12/31/83 |
| Northeast Curriculum Coordination Center | New Jersey Bureau of Occupational and Career Research Development<br>Trenton, New Jersey | 03/01/79-12/31/81 |
| Northwestern Curriculum Coordination Center | Washington State Commission for Vocational Education<br>Olympia, Washington | 03/01/79-12/31/81 |

## PROJECTS OF NATIONAL SIGNIFICANCE

### Contracts Awarded in Fiscal Year 1980

| Project Title | Contractor | Funding Cycle |
|---|---|---|
| Conversion of Armed Services Environmental Health Specialist Instructional Materials for Use in Vocational Education | Consumer Dynamics, Inc.<br>Rockville, Maryland | 01/01/80-<br>06/30/81 |
| Development of a Support Service System Sex Equity Services in Vocational Education | Far West Laboratory for Education<br>San Francisco, California | 06/15/80-<br>02/14/82 |
| Design of a National Cost Benefit Study of Vocational Education at the Secondary, Post-Secondary, and Adult Levels | Rehab Group, Inc.<br>Falls Church, Virginia | 09/15/80-<br>09/14/81 |
| Linking Education and Economic Development in Middle America | National Institute for Work and Learning<br>Washington, D. C. | 10/01/80-<br>06/30/81 |
| Vocational Education Personnel Development Needs for Working with the Handicapped | Educational Innovators, Inc.<br>Richardson, Texas | 10/01/80-<br>09/30/81 |
| Energy Conservation Vocational Instructional Materials | American Institutes for Research<br>Palo Alto, California | 10/01/80-<br>03/31/82 |
| Improvement of Related Instruction in Apprenticeship Programs | Conserva, Inc.<br>Raleigh, North Carolina | 10/01/80-<br>09/30/82 |

## TRAINING AND PERSONNEL DEVELOPMENT

There are two authorized national programs concerned with personnel development: the Graduate Leadership Development Program, and the Teacher Certification Fellowship Program. The Graduate Leadership Development Program provides opportunities for experienced vocational educators to study full time in an advanced study program for up to 3 years. Awards are made to selected individuals to attend an approved institution of their choice. The Teacher Certification Fellowship Program provides opportunities for unemployed, previously certified teachers, and persons from business, industry, and agriculture to seek certification in vocational instructional areas in which a need for teachers has been identified.

For fiscal year 1980, the Leadership Development Program was funded at $1,652,082 and 146 persons received awards to study at 18 institutions. This was the second year of the 3-year program. The Teacher Certification Fellowship Program was funded at approximately $1,399,868 and 118 fellows received awards. This was the final year of the 2-year program. Both of these programs are forward funded, so the fiscal year 1979 appropriations were spent in fiscal year 1980.

The Leadership Development Program has provided opportunities for over 2,000 persons to participate in advanced studies. These persons have since assumed positions of leadership in vocational education throughout the Nation: State directors of vocational education, university and college administrators, university department chairpersons, executive directors of State advisory councils on vocational education, regional, area, and local coordinators for vocational education, curriculum developers, researchers, professionals in related agencies such as CETA, special education, and adult education, and members of legislative bodies.

The Teacher Certification Fellowship Program enabled undergraduate vocational teacher educators to improve programs at their institutions. The Fellowship Program also enabled individuals to become certified vocational teachers to fill positions in areas where there are teacher shortages. The quality of instruction in vocational education has thus been improved. The program even encouraged two States to develop a system for recruiting new teachers to vocational education.

## COORDINATING COMMITTEE FOR RESEARCH IN VOCATIONAL EDUCATION

Another important aspect of the Federal role in vocational education is the Coordinating Committee for Research in Vocational Education (CCRVE) which was established by Section 171. Representatives from the National Institute of Education, the Office of Vocational and Adult Education, the Fund for the Improvement of Postsecondary Education, the Office of Career Education, and the Office of Special Education and Rehabilitative Services meet bimonthly. By sharing program information, publications, and releases among themselves, the Committee members have coordinated program efforts and reduced duplication. The exchange of information which takes place at the Committee meetings and through the biweekly informational mailings affects program planning at the member agencies. In addition, program briefings and seminars about the program efforts of the various agencies have been sponsored by the Coordinating Committee.

The Coordinating Committee has developed an information system which includes a publication entitled Projects in Progress. This publication contains data about current vocational education projects supported by agencies which are represented on the Coordinating Committee. It is collated and produced every year for CCRVE by the National Center for Research in Vocational Education. The total information system allows close monitoring and evaluation of each project, assists in the widest possible dissemination of project results and products, and provides a basis for more systematic planning. In fiscal year 1980, 375 copies of Projects in Progress were distributed to the Coordinating Committee agencies, vocational education leaders, and Congressional members and staff.

In addition, the Coordinating Committee publishes and disseminates a Guide to Federal Funding in Career Education, Education and Work and Vocation Education. This Guide is updated annually and provides general information about programs and funding sources in these subject areas. In fiscal year 1980, over 4,000 copies of the Guide were distributed.

## ADAPTATION OF ARMED SERVICES' CURRICULA FOR CIVILIAN USE

Section 171(b)(3) authorizes contracts for converting curriculum materials prepared by the armed services for use in civilian vocational education programs. The Departments of Defense and Education have cooperated to implement this section and have signed a "Joint Memorandum of Understanding."

This formal agreement is continuing and has improved the availability of curriculum and instructional materials produced by the armed services.

The Department of Education, with the assistance of the National Center for Research in Vocational Education, identifies and selects appropriate military curricula to be converted for civilian use. Three curriculum projects have been completed so far: dental assistant, physician assistant, and environmental health specialist.

A contract was awarded to Organization and Human Resource Development Associates, Inc., of Austin, Texas, to convert existing armed forces training materials for dental assistant and physician assistant into competency-based modules for use in the civilian sector. The dental assistant curriculum contains 28 separate modules. The physician's assistant curriculum contains 23 separate modules. The Department of Education awarded a contract to Consumer Dynamics of Rockville, Maryland, to convert curriculum for environmental health specialist for use in civilian programs. This project has been completed and will be available in September 1981.

Because the curricula for these three areas had already been developed and was available from the military, it was possible to produce civilian programs at a fraction of the cost of developing such curricula "from scratch."

# SUBPART 3. BILINGUAL VOCATIONAL TRAINING

# BILINGUAL VOCATIONAL TRAINING

Section 183 authorizes Federal funds for bilingual vocational training, bilingual vocational instructor training, and development of bilingual vocational instructional materials, methods, and techniques. These programs were transferred from the Office of Vocational and Adult Education to the Office of Bilingual Education and Minority Languages Affairs in May 1980. The fiscal year 1979 appropriation for these programs for use in program year 1979-80 was $2.8 million. Sixty-five percent ($1,820,000) of the appropriation was allocated for bilingual vocational training projects, 25 percent ($700,000) was allocated for bilingual vocational instructor training projects, and 10 percent ($280,000) for the development of instructional materials.

The purpose of the bilingual vocational training program is to prepare persons with limited English proficiency to perform adequately in a work environment which requires English language skills. Trainees acquire both vocational and English skills which enable them to compete in the job market. The program also fills the critical need for more and better trained persons in occupational categories which are vital to the Nation's economy.

Since the bilingual vocational training program began in 1975, eighty-seven 1-year projects have received grant awards. During school year 1979-80, 10 projects were funded which served Hispanic, Chinese, and Indo-Chinese adults with limited English proficiency. A total of 637 persons received training in such fields as electronics, accounting, banking and finance, clerical, food preparation, housing maintenance and repair, restaurant industries, basic office practices, bookkeeping, key punch computer operations, and as dental assistants.

The purpose of the bilingual vocational instructor training program is to meet the critical shortage of instructors who have both the job skills and the dual language proficiency necessary to teach persons with limited English proficiency. During school year 1979-80, three instructor training programs were funded: one each in Chinese and Spanish, and one combination for both Chinese and Spanish. A total of 90 persons received training to be bilingual vocational instructors in accounting, banking and finance, as chef instructors, and as instructor aides. These persons can be employed as aides, counselors, placement coordinators, or classroom teachers.

For the development of bilingual vocational instructional materials, one 18-month contract was awarded in program year 1979-80. The project "Assessing Successful Strategies in Bilingual Vocational Training Programs" will be completed in June 1981.

# SUBPART 4. EMERGENCY ASSISTANCE FOR REMODELING AND RENOVATION OF VOCATIONAL EDUCATION FACILITIES

## EMERGENCY ASSISTANCE FOR REMODELING AND RENOVATION OF VOCATIONAL EDUCATION FACILITIES

Section 191 provides for emergency assistance for remodeling and renovating vocational education facilities. Local educational agencies in urban and rural areas may apply for funds if they are unable to provide education designed to meet current employment needs because of the age of their facilities or equipment.

Although Congress authorized funds for this program, no funds have ever been appropriated.

# APPALACHIAN REGIONAL DEVELOPMENT COMMISSION PROGRAM

# APPALACHIAN REGIONAL DEVELOPMENT COMMISSION PROGRAM

The Appalachian Regional Commission (ARC) was established by the Appalachian Regional Development Act of 1965 to help build a better economy and a better quality of life for Appalachia and its inhabitants. The Commission has concentrated its education program in the field of vocational and technical training. The goal is to provide the people of Appalachia with the skills needed to participate productively in society and to compete effectively in the labor market.

This vocational program is administered by the Education Department, but distributes Federal funds that are transferred from the Appalachian Regional Commission. Grants are made for planning, constructing, and operating area vocational schools, and for educational projects which demonstrate area-wide planning, services, and programs. Projects that focus on vocational-technical, career, cooperative education, and guidance receive special emphasis.

Many ARC-assisted projects provide completely new vocational training opportunities for students in the Appalachian Region. Secondary and postsecondary vocational education facilities are built where none existed before, or occupational programs are upgraded and expanded to provide more training opportunities in both traditional and newly-emerging occupations.

Generally, an adequate network of vocational education facilities has now been constructed in Appalachia. Selected additional construction is still needed in some areas, including expanding existing facilities and renovating dilapidated or cramped quarters. A more common need in the region is replacing obsolete equipment.

Since the Appalachian Regional Development Commission Program began operating in fiscal year 1966, 715 area vocational education construction/equipment projects have been funded. We estimate that, when all of these projects are fully operational, over 400,000 students will be enrolled in the regular day school program. Adult programs in the evening add substantially to the number of students served by this program.

In addition to construction projects, the ARC program includes demonstration/operation type projects. The ARC has adopted these priorities for demonstration projects: effective ways to fully use vocational education facilities, career education, adult inservice professional development, home-based multi-media individual programs, self-paced programs, and innovative facility and equipment projects such as mobile classrooms or guidance facilities. These demonstration projects provide innovative learning experiences for both adults and youth.

Additional learning opportunities are also being created by the recent development of close cooperation between vocational education providers and State industrial development planners. Intensive industry-specific programs are being initiated. The programs frequently use existing vocational facilities and train a skilled labor pool for new, relocated, and growing industries in the region. This cooperative venture brings industry into closer contact with vocational education, a juxtaposition that benefits both, and insures that current state-of-the-art skills are provided to students.

During fiscal year 1980, 115 projects were funded with $12.5 million ARC transferred funds and $7.7 million State and local funds. This included both construction and demonstration projects. However, since fiscal year 1972 when Congress amended the Act to include demonstration projects, the trend has been a decrease in construction and an increase in demonstration projects. Since the Federal funds for this program are steadily decreasing, and since demonstration projects are less costly than construction, it is likely that this trend will continue.

# APPENDIXES

# APPENDIX 1. Enrollment Tables

E- 1. Number of Teachers and Staff (Unduplicated) by Program Area by State
E- 2. Number of Teachers and Staff (Full-Time Equivalents) by Program and State
E- 3. Number of Enrollments by Instructional Program Areas by State
E- 4. Number of Enrollments by Racial/Ethnic Designation and Sex by State
E- 5. Number of Enrollments by Program Level by State
E- 6. Number of Enrollments by Program Level by Program
E- 7. Number of Enrollments in Occupationally Specific Programs by Level by State
E- 8. Number of Enrollments in Occupationally Specific Programs by Racial/Ethnic Designation and Sex by State
E- 9. Number of Enrollments in Cooperative Education Programs by State
E-10. Number of Enrollments in Occupationally Specific Programs by Level by Instructional Program
E-11. Number of Enrollments in Occupationally Specific Programs by Racial/Ethnic Designation and Sex by Program
E-12. Number of Enrollments in Cooperative Education Programs by Program
E-13. Number of Program Completers by Level and Transfers by State
E-14. Number of Program Completers by Instructional Program by State
E-15. Number of Program Completers by Level and Transfers by Instructional Program
E-16. Number of Leavers by Program Level and Percent of Completion by State
E-17. Number of Program Leavers by Instructional Program by State
E-18. Number of Leavers by Program Level and Percent of Completion by Instructional Program
E-19. Number of Female Enrollees and Percent of Total Enrollment by Instructional Program
E-20. Number of Students Benefiting from Vocational Education Programs by Specific Conditions by State

## TABLE E-1.--NUMBER OF TEACHERS AND STAFF (UNDUPLICATED) BY PROGRAM AREA BY STATE: UNITED STATES, OUTLYING AREAS 1978-79

| STATE | TOTAL | AGRI-CULTURE | DISTRI-BUTION | HEALTH | CONS. & HMMKG | OCCUP. HOME ECON | IND. ARTS | OFFICE OCCUP. | TECH-NICAL | TRADE & INDUS | OTHER NEC | PROG/ SUPPORT | PROG/ SUPER-VISORY | SPECIAL NEC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALABAMA | 4,209 | 450 | 164 | 360 | 559 | 134 | 34 | 715 | 100 | 1,563 | 50 | 34 | 46 | 0 |
| ALASKA | 1,098 | 18 | 57 | 58 | 90 | 59 | 42 | 290 | 54 | 325 | 24 | 34 | 47 | 0 |
| ARIZONA | 5,119 | 203 | 603 | 352 | 458 | 266 | 159 | 921 | 272 | 1,558 | 327 | 0 | 0 | 0 |
| ARKANSAS | 2,540 | 292 | 70 | 355 | 462 | 39 | 42 | 327 | 0 | 620 | 187 | 76 | 70 | 0 |
| CALIFORNIA | 41,319 | 1,481 | 3,396 | 3,024 | 3,300 | 1,269 | 2,027 | 9,313 | 2,660 | 9,086 | 0 | 2,843 | 2,920 | 0 |
| COLORADO | 4,610 | 166 | 356 | 384 | 360 | 222 | 0 | 1,117 | 558 | 1,023 | 0 | 280 | 144 | 0 |
| CONNECTICUT | 4,798 | 62 | 107 | 140 | 766 | 35 | 1,323 | 1,188 | 12 | 738 | 168 | 154 | 105 | 0 |
| DELAWARE | 1,281 | 54 | 34 | 49 | 98 | 43 | 139 | 201 | 43 | 322 | 127 | 131 | 40 | 0 |
| DISTRICT OF COLUMBIA | 616 | 2 | 19 | 21 | 124 | 9 | 71 | 235 | 0 | 110 | 0 | 12 | 13 | 0 |
| FLORIDA | 19,812 | 754 | 1,500 | 1,867 | 976 | 1,431 | 1,456 | 4,205 | 1,300 | 3,808 | 1,491 | 651 | 373 | 0 |
| GEORGIA | 9,101 | 310 | 431 | 606 | 1,171 | 313 | 518 | 1,926 | 277 | 2,323 | 0 | 727 | 499 | 0 |
| HAWAII | 1,451 | 32 | 49 | 34 | 157 | 16 | 187 | 260 | 35 | 483 | 0 | 160 | 38 | 0 |
| IDAHO | 1,271 | 117 | 66 | 71 | 182 | 17 | 40 | 252 | 22 | 362 | 64 | 51 | 27 | 0 |
| ILLINOIS | 22,586 | 956 | 1,483 | 1,680 | 680 | 1,617 | 0 | 5,368 | 1,176 | 5,437 | 1,111 | 1,603 | 1,515 | 0 |
| INDIANA | 4,418 | 311 | 180 | 512 | 690 | 71 | 0 | 572 | 220 | 1,205 | 281 | 178 | 198 | 0 |
| IOWA | 3,064 | 470 | 210 | 436 | 417 | 84 | 1 | 332 | 184 | 672 | 30 | 212 | 16 | 0 |
| KANSAS | 1,824 | 234 | 72 | 193 | 339 | 26 | 72 | 175 | 22 | 491 | 38 | 93 | 69 | 0 |
| KENTUCKY | 5,095 | 319 | 196 | 316 | 711 | 134 | 91 | 819 | 31 | 929 | 997 | 344 | 208 | 0 |
| LOUISIANA | 4,374 | 322 | 122 | 251 | 603 | 77 | 353 | 1,292 | 52 | 875 | 36 | 171 | 220 | 0 |
| MAINE | 2,312 | 48 | 52 | 342 | 148 | 46 | 0 | 368 | 114 | 984 | 89 | 76 | 45 | 0 |
| MARYLAND | 6,751 | 149 | 339 | 485 | 1,140 | 60 | 0 | 2,153 | 503 | 1,311 | 494 | 117 | 0 | 0 |
| MASSACHUSETTS | 10,437 | 184 | 274 | 660 | 574 | 149 | 873 | 2,141 | 409 | 3,074 | 0 | 964 | 1,135 | 0 |
| MICHIGAN | 10,698 | 245 | 577 | 1,136 | 926 | 295 | 0 | 1,890 | 1,091 | 2,514 | 610 | 975 | 439 | 0 |
| MINNESOTA | 10,481 | 854 | 748 | 849 | 1,048 | 602 | 0 | 1,428 | 544 | 3,840 | 0 | 117 | 451 | 0 |
| MISSISSIPPI | 8,192 | 321 | 190 | 243 | 567 | 106 | 275 | 439 | 129 | 1,254 | 3 | 349 | 135 | 181 |
| MISSOURI | 7,010 | 406 | 506 | 633 | 837 | 192 | 0 | 1,050 | 0 | 1,859 | 0 | 1,327 | 200 | 0 |
| NEBRASKA | 1,510 | 194 | 104 | 118 | 264 | 31 | 0 | 305 | 0 | 419 | 34 | 26 | 15 | 0 |
| NEVADA | 1,203 | 58 | 85 | 56 | 85 | 23 | 21 | 316 | 110 | 326 | 102 | 6 | 15 | 0 |
| NEW HAMPSHIRE | 1,132 | 60 | 23 | 73 | 148 | 25 | 200 | 198 | 0 | 199 | 56 | 92 | 58 | 0 |
| NEW JERSEY | 7,863 | 53 | 168 | 163 | 1,501 | 41 | 2,284 | 2,212 | 90 | 1,097 | 0 | 0 | 254 | 0 |
| NEW MEXICO | 1,177 | 89 | 58 | 33 | 299 | 30 | 78 | 202 | 42 | 247 | 28 | 55 | 16 | 0 |
| NEW YORK | 27,831 | 623 | 1,235 | 1,994 | 2,457 | 848 | 4,295 | 8,318 | 1,592 | 4,985 | 0 | 567 | 917 | 0 |
| NORTH CAROLINA | 8,795 | 594 | 447 | 605 | 759 | 332 | 160 | 743 | 249 | 2,516 | 2,125 | 162 | 103 | 0 |
| NORTH DAKOTA | 1,137 | 163 | 56 | 63 | 230 | 26 | 63 | 187 | 62 | 190 | 64 | 17 | 16 | 0 |
| OHIO | 29,252 | 967 | 1,753 | 1,411 | 2,207 | 687 | 0 | 2,364 | 279 | 4,997 | 404 | 544 | 827 | 12,812 |
| OKLAHOMA | 4,895 | 534 | 98 | 477 | 395 | 89 | 0 | 1,222 | 539 | 705 | 167 | 288 | 381 | 0 |
| OREGON | 6,606 | 278 | 417 | 501 | 753 | 140 | 860 | 1,037 | 210 | 1,505 | 366 | 292 | 247 | 0 |
| PENNSYLVANIA | 15,326 | 615 | 463 | 1,075 | 1,365 | 296 | 50 | 4,262 | 1,548 | 4,058 | 0 | 687 | 907 | 0 |
| RHODE ISLAND | 1,383 | 12 | 24 | 64 | 157 | 25 | 317 | 230 | 97 | 251 | 135 | 45 | 26 | 0 |
| SOUTH CAROLINA | 5,122 | 200 | 153 | 192 | 448 | 62 | 108 | 889 | 187 | 1,051 | 1,631 | 123 | 78 | 0 |
| SOUTH DAKOTA | 734 | 103 | 40 | 65 | 181 | 32 | 0 | 73 | 0 | 207 | 0 | 13 | 20 | 0 |
| TENNESSEE | 7,416 | 270 | 324 | 455 | 638 | 213 | 358 | 1,102 | 422 | 2,294 | 192 | 761 | 387 | 0 |
| TEXAS | 18,848 | 1,681 | 696 | 1,743 | 2,440 | 792 | 298 | 2,999 | 1,046 | 5,607 | 718 | 482 | 386 | 0 |
| UTAH | 2,777 | 118 | 197 | 171 | 353 | 83 | 106 | 573 | 32 | 954 | 46 | 104 | 40 | 0 |

TABLE E-1.--NUMBER OF TEACHERS AND STAFF (UNDUPLICATED) BY PROGRAM AREA BY STATE: UNITED STATES, OUTLYING AREAS 1978-79

| STATE | TOTAL | AGRI-CULTURE | DISTRI-BUTION | HEALTH | CONS. & HMMKG | OCCUP. HOME ECON | IND. ARTS | OFFICE OCCUP. | TECH-NICAL | TRADE & INDUS | OTHER NEC | PROG/ SUPPORT | PROG/ SUPER-VISORY | SPECIAL NEC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VERMONT | 834 | 49 | 11 | 10 | 140 | 24 | 0 | 130 | 0 | 183 | 0 | 48 | 35 | 0 |
| VIRGINIA | 9,269 | 440 | 419 | 655 | 900 | 200 | 1,100 | 2,994 | 0 | 2,449 | 0 | 40 | 81 | 0 |
| WASHINGTON | 11,128 | 492 | 877 | 909 | 1,059 | 1,219 | 130 | 1,926 | 639 | 3,179 | 89 | 364 | 241 | 0 |
| WEST VIRGINIA | 2,052 | 114 | 60 | 102 | 257 | 57 | 0 | 531 | 36 | 505 | 167 | 117 | 104 | 0 |
| WISCONSIN | 11,782 | 552 | 612 | 719 | 1,821 | 379 | 1,160 | 2,553 | 559 | 2,264 | 91 | 197 | 875 | 0 |
| WYOMING | 562 | 37 | 20 | 6 | 109 | 1 | 149 | 150 | 1 | 61 | 28 | 0 | 0 | 0 |
| TOTAL U.S. | 368,897 | 17,056 | 20,132 | 26,721 | 36,309 | 12,967 | 19,440 | 74,493 | 17,550 | 87,015 | 12,570 | 16,709 | 14,942 | 12,993 |
| AMERICAN SAMOA | 44 | 0 | 1 | 4 | 6 | 0 | 5 | 12 | 1 | 11 | 0 | 0 | 4 | 0 |
| NORTHERN MARIANAS | 23 | 4 | 0 | 0 | 6 | 0 | 0 | 2 | 0 | 10 | 0 | 0 | 1 | 0 |
| GUAM | 127 | 1 | 2 | 0 | 18 | 0 | 18 | 20 | 10 | 33 | 5 | 11 | 9 | 0 |
| PUERTO RICO | 2,640 | 119 | 79 | 77 | 681 | 25 | 545 | 375 | 94 | 589 | 0 | 40 | 16 | 0 |
| TRUST TERRITORY | 144 | 21 | 0 | 1 | 30 | 2 | 0 | 10 | 0 | 72 | 0 | 1 | 7 | 0 |
| OUTLYING AREAS | 2,978 | 145 | 82 | 82 | 741 | 27 | 568 | 419 | 105 | 715 | 5 | 52 | 37 | 0 |
| U.S. & OUTLYING AREAS | 371,875 | 17,201 | 20,214 | 26,803 | 37,050 | 12,994 | 20,008 | 74,912 | 17,655 | 87,730 | 12,575 | 16,761 | 14,979 | 12,993 |

TABLE F-2.--NUMBER OF TEACHERS AND STAFF (FULL-TIME EQUIVALENTS) BY PROGRAM AND STATE: UNITED STATES, OUTLYING AREAS 1978-79

| STATE | TOTAL | AGRI-CULTURE | DISTRI-BUTION | HEALTH | CONS. & HMMKG | OCCUP. HOME ECON | IND. ARTS | OFFICE OCCUP. | TECH-NICAL | TRADE & INDUS | OTHER VEC | SPECIAL NEC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ALABAMA | 4534.4 | 449.3 | 159.2 | 405.1 | 559.3 | 130.2 | 34.0 | 676.1 | 144.3 | 1931.7 | 45.1 | 0.0 |
| ALASKA | 588.2 | 9.3 | 28.9 | 33.6 | 52.0 | 31.6 | 26.0 | 169.4 | 24.9 | 197.6 | 14.7 | 0.0 |
| ARIZONA | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| ARKANSAS | 2307.1 | 263.5 | 60.2 | 319.5 | 393.3 | 35.6 | 43.9 | 307.1 | 0.0 | 684.3 | 199.7 | 0.0 |
| CALIFORNIA | 19232.6 | 944.5 | 1166.5 | 1984.5 | 1973.1 | 549.1 | 1461.7 | 5116.2 | 1145.6 | 4851.8 | 0.0 | 0.0 |
| COLORADO | 3183.1 | 152.2 | 228.3 | 286.0 | 335.8 | 141.0 | 0.0 | 883.8 | 394.6 | 761.5 | 0.0 | 0.0 |
| CONNECTICUT | 4401.5 | 62.0 | 107.0 | 131.0 | 752.0 | 35.0 | 1323.0 | 1128.0 | 11.5 | 684.0 | 168.0 | 0.0 |
| DELAWARE | 1052.9 | 50.1 | 33.6 | 47.0 | 98.0 | 43.0 | 139.0 | 184.3 | 37.6 | 296.3 | 119.0 | 0.0 |
| DISTRICT OF COLUMBIA | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| FLORIDA | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| GEORGIA | 12804.9 | 276.7 | 888.3 | 1224.9 | 1583.2 | 631.8 | 445.3 | 2873.1 | 642.1 | 4239.6 | 0.0 | 0.0 |
| HAWAII | 534.6 | 25.6 | 32.9 | 39.7 | 0.0 | 8.4 | 0.0 | 147.4 | 20.3 | 260.3 | 0.0 | 0.0 |
| IDAHO | 1001.7 | 109.6 | 28.7 | 79.8 | 146.8 | 14.1 | 10.3 | 138.8 | 36.0 | 384.7 | 52.9 | 0.0 |
| ILLINOIS | 13333.5 | 663.4 | 564.4 | 1161.1 | 495.5 | 1188.6 | 0.0 | 3529.1 | 692.5 | 4186.6 | 852.3 | 0.0 |
| INDIANA | 3587.2 | 361.7 | 149.1 | 279.7 | 667.0 | 106.4 | 0.0 | 435.7 | 144.9 | 1205.9 | 236.8 | 0.0 |
| IOWA | 2189.9 | 385.5 | 127.0 | 349.1 | 344.1 | 64.8 | 0.2 | 263.8 | 118.2 | 515.1 | 22.1 | 0.0 |
| KANSAS | 1427.6 | 219.9 | 60.8 | 152.5 | 283.4 | 20.8 | 57.8 | 136.9 | 15.6 | 446.1 | 33.8 | 0.0 |
| KENTUCKY | 3919.2 | 311.4 | 153.4 | 436.5 | 555.9 | 72.9 | 79.4 | 752.1 | 55.1 | 1212.2 | 290.3 | 0.0 |
| LOUISIANA | 4582.6 | 362.6 | 119.9 | 402.1 | 513.5 | 87.8 | 312.7 | 1316.2 | 99.1 | 1329.6 | 39.0 | 0.0 |
| MAINE | 1623.5 | 46.0 | 44.0 | 220.5 | 144.0 | 41.0 | 0.0 | 255.0 | 88.0 | 696.0 | 89.0 | 0.0 |
| MARYLAND | 3578.6 | 99.6 | 110.6 | 255.1 | 693.4 | 53.6 | 0.0 | 980.3 | 158.6 | 755.5 | 471.9 | 0.0 |
| MASSACHUSETTS | 6936.0 | 156.0 | 219.0 | 538.0 | 493.0 | 121.0 | 798.0 | 1817.0 | 290.0 | 2504.0 | 0.0 | 0.0 |
| MICHIGAN | 5677.4 | 177.3 | 266.5 | 810.5 | 540.4 | 229.9 | 0.0 | 900.7 | 572.3 | 1682.5 | 496.7 | 0.0 |
| MINNESOTA | 5562.3 | 532.8 | 475.6 | 744.5 | 38.0 | 484.7 | 0.0 | 501.3 | 692.3 | 2093.2 | 0.0 | 0.0 |
| MISSISSIPPI | 3545.9 | 325.9 | 134.1 | 265.8 | 536.9 | 87.3 | 261.9 | 278.0 | 143.3 | 1330.1 | 0.0 | 182.2 |
| MISSOURI | 3136.0 | 380.0 | 297.0 | 370.0 | 586.0 | 92.0 | 0.0 | 408.0 | 0.0 | 1003.0 | 0.0 | 0.0 |
| NEBRASKA | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| NEVADA | 721.7 | 34.4 | 27.5 | 35.1 | 75.3 | 10.5 | 13.5 | 194.2 | 50.5 | 204.7 | 75.9 | 0.0 |
| NEW HAMPSHIRE | 1022.5 | 52.8 | 19.5 | 68.4 | 187.4 | 22.7 | 229.4 | 214.5 | 0.0 | 184.7 | 43.1 | 0.0 |
| NEW JERSEY | 7518.5 | 52.3 | 167.3 | 159.6 | 1457.4 | 41.0 | 2274.6 | 2183.9 | 90.0 | 1092.3 | 0.0 | 0.0 |
| NEW MEXICO | 805.1 | 76.4 | 42.7 | 24.4 | 289.5 | 26.8 | 78.0 | 90.8 | 13.5 | 155.4 | 7.6 | 0.0 |
| NEW YORK | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| NORTH CAROLINA | 5067.0 | 429.0 | 295.0 | 143.0 | 758.0 | 134.0 | 138.0 | 314.0 | 0.0 | 1402.0 | 1454.0 | 0.0 |
| NORTH DAKOTA | 875.6 | 156.5 | 38.9 | 56.0 | 130.2 | 17.9 | 61.5 | 107.0 | 62.0 | 190.0 | 55.6 | 0.0 |
| OHIO | 11899.0 | 724.8 | 766.3 | 696.6 | 1285.7 | 425.1 | 0.0 | 1422.7 | 100.5 | 3148.0 | 404.0 | 2925.3 |
| OKLAHOMA | 3646.0 | 513.0 | 94.0 | 387.0 | 395.0 | 63.0 | 0.0 | 944.0 | 396.0 | 667.0 | 167.0 | 0.0 |
| OREGON | 2433.0 | 121.0 | 41.0 | 21.0 | 620.0 | 26.0 | 735.0 | 412.0 | 13.0 | 377.0 | 67.0 | 0.0 |
| PENNSYLVANIA | 7730.9 | 365.5 | 261.9 | 753.4 | 757.0 | 256.1 | 36.7 | 2205.7 | 796.9 | 2247.8 | 0.0 | 0.0 |
| RHODE ISLAND | 966.0 | 7.0 | 18.0 | 62.0 | 142.0 | 25.0 | 206.0 | 183.0 | 47.0 | 196.0 | 80.0 | 0.0 |
| SOUTH CAROLINA | 3850.8 | 179.5 | 113.1 | 146.7 | 357.7 | 57.4 | 63.6 | 709.5 | 130.6 | 908.6 | 1184.1 | 0.0 |
| SOUTH DAKOTA | 347.2 | 71.9 | 28.6 | 6.8 | 149.8 | 7.4 | 0.0 | 26.0 | 0.0 | 56.6 | 0.0 | 0.0 |
| TENNESSEE | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| TEXAS | 13574.0 | 1631.7 | 699.0 | 1134.9 | 2424.5 | 773.5 | 264.0 | 1706.3 | 597.6 | 4062.8 | 279.7 | 0.0 |
| UTAH | 4557.4 | 145.3 | 247.8 | 135.1 | 1661.0 | 140.3 | 309.1 | 551.2 | 55.8 | 1126.1 | 186.4 | 0.0 |

## TABLE E-2.--NUMBER OF TEACHERS AND STAFF (FULL-TIME EQUIVALENTS) BY PROGRAM AND STATE: UNITED STATES, OUTLYING AREAS 1978-79

| STATE | TOTAL | AGRI-CULTURE | DISTRI-BUTION | HEALTH | CONS. & HMMKG | OCCUP. HOME ECON | IND. ARTS | OFFICE OCCUP. | TECH-NICAL | TRADE & INDUS | OTHER NEC | SPECIAL NEC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VERMONT | 414.9 | 45.3 | 9.8 | 13.7 | 119.7 | 18.8 | 0.0 | 67.9 | 0.0 | 140.2 | 0.0 | 0.0 |
| VIRGINIA | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| WASHINGTON | 4281.9 | 325.4 | 287.8 | 385.0 | 515.4 | 300.9 | 42.4 | 918.8 | 227.8 | 1216.1 | 62.4 | 0.0 |
| WEST VIRGINIA | 1711.9 | 111.3 | 59.3 | 97.8 | 224.4 | 57.0 | 0.0 | 503.0 | 36.9 | 505.0 | 117.2 | 0.0 |
| WISCONSIN | 1734.8 | 64.8 | 160.1 | 277.6 | 153.0 | 16.4 | 0.0 | 524.3 | 359.6 | 179.0 | 0.0 | 0.0 |
| WYOMING | 511.8 | 34.4 | 19.6 | 4.4 | 99.8 | 1.0 | 135.8 | 138.0 | 1.0 | 56.4 | 21.4 | 0.0 |
| TOTAL U.S. | 182411.2 | 11507.1 | 8852.0 | 15145.0 | 23588.0 | 6751.3 | 9580.7 | 36620.6 | 8505.3 | 51417.1 | 7336.6 | 3107.5 |
| AMERICAN SAMOA | 41.6 | 0.5 | 1.0 | 4.0 | 6.0 | 0.0 | 5.5 | 12.0 | 1.3 | 11.3 | 0.0 | 0.0 |
| NORTHERN MARIANAS | 17.6 | 3.1 | 0.0 | 0.0 | 5.3 | 0.0 | 0.0 | 1.2 | 0.0 | 8.0 | 0.0 | 0.0 |
| GUAM | 81.2 | 1.0 | 2.0 | 0.0 | 16.5 | 0.0 | 16.3 | 13.7 | 6.7 | 20.0 | 5.0 | 0.0 |
| PUERTO RICO | 2585.5 | 119.0 | 79.0 | 77.5 | 681.0 | 25.5 | 545.0 | 375.5 | 94.0 | 589.0 | 0.0 | 0.0 |
| TRUST TERRITORY | 117.3 | 16.8 | 0.0 | 1.0 | 24.8 | 1.7 | 0.0 | 10.1 | 0.0 | 62.9 | 0.0 | 0.0 |
| OUTLYING AREAS | 2843.2 | 140.4 | 82.0 | 82.5 | 733.6 | 27.2 | 566.8 | 412.5 | 102.0 | 691.2 | 5.0 | 0.0 |
| U.S. & OUTLYING AREAS | 185254.4 | 11647.4 | 8934.0 | 15227.5 | 24321.6 | 6778.5 | 10147.5 | 37033.2 | 8607.3 | 52108.4 | 7341.6 | 3107.5 |

## TABLE E-3.--NUMBER OF ENROLLMENTS BY INSTRUCTIONAL PROGRAM AREAS BY STATE: UNITED STATES, OUTLYING AREAS 1978-79

| STATE | TOTAL | AGRI-CULTURE | DISTRI-BUTION | HEALTH | CONS. & HMMKG | OCCUP. HOME ECON | IND. ARTS | OFFICE OCCUP. | TECH-NICAL | TRADE & INDUS | OTHER NEC |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ALABAMA | 221,486 | 32,622 | 7,952 | 9,642 | 54,128 | 6,512 | 3,249 | 35,291 | 1,850 | 65,511 | 4,729 |
| ALASKA | 39,620 | 476 | 2,667 | 1,136 | 5,096 | 890 | 1,041 | 13,238 | 1,438 | 10,621 | 3,017 |
| ARIZONA | 161,540 | 6,009 | 16,385 | 4,507 | 60,243 | 4,706 | 12,010 | 20,061 | 362 | 14,465 | 22,792 |
| ARKANSAS | 138,735 | 21,395 | 5,212 | 8,562 | 42,129 | 2,260 | 2,053 | 19,424 | 588 | 26,045 | 11,067 |
| CALIFORNIA | 1,869,684 | 77,479 | 138,032 | 70,575 | 274,100 | 61,941 | 193,093 | 582,414 | 79,833 | 376,763 | 14,654 |
| COLORADO | 145,732 | 4,159 | 5,757 | 7,960 | 35,514 | 7,022 | 0 | 38,604 | 10,035 | 25,543 | 11,138 |
| CONNECTICUT | 209,316 | 1,999 | 4,778 | 4,210 | 87,402 | 1,950 | 24,784 | 43,615 | 1,981 | 32,733 | 5,864 |
| DELAWARE | 65,796 | 2,720 | 1,563 | 2,341 | 3,367 | 4,990 | 11,352 | 14,086 | 2,219 | 17,715 | 5,443 |
| DISTRICT OF COLUMBIA | 23,248 | 129 | 876 | 333 | 803 | 8,342 | 6,349 | 3,950 | 0 | 2,466 | 0 |
| FLORIDA | 1,152,424 | 55,184 | 71,313 | 74,365 | 111,002 | 142,676 | 45,296 | 281,156 | 26,593 | 264,123 | 80,716 |
| GEORGIA | 432,287 | 25,038 | 11,762 | 13,888 | 101,800 | 8,440 | 47,209 | 98,218 | 4,215 | 70,955 | 50,762 |
| HAWAII | 57,726 | 2,765 | 3,713 | 857 | 16,745 | 2,067 | 1,593 | 14,950 | 1,272 | 12,256 | 1,508 |
| IDAHO | 44,211 | 4,974 | 2,396 | 1,795 | 15,200 | 291 | 816 | 7,813 | 304 | 9,309 | 1,313 |
| ILLINOIS | 802,153 | 35,868 | 58,857 | 39,960 | 40,800 | 81,466 | 0 | 254,027 | 23,276 | 249,028 | 18,071 |
| INDIANA | 223,079 | 27,148 | 7,695 | 10,223 | 48,640 | 3,265 | 0 | 23,615 | 13,558 | 74,438 | 14,497 |
| IOWA | 328,223 | 36,004 | 14,008 | 72,765 | 100,133 | 12,196 | 48 | 34,562 | 4,209 | 44,118 | 10,100 |
| KANSAS | 111,598 | 10,545 | 5,347 | 9,009 | 36,008 | 3,574 | 3,723 | 12,023 | 982 | 30,291 | 96 |
| KENTUCKY | 292,546 | 22,295 | 12,432 | 6,869 | 78,422 | 3,326 | 9,135 | 30,870 | 605 | 79,131 | 49,461 |
| LOUISIANA | 246,576 | 20,854 | 8,136 | 9,737 | 54,996 | 3,026 | 29,505 | 76,973 | 1,146 | 41,525 | 678 |
| MAINE | 43,359 | 790 | 2,054 | 6,469 | 9,749 | 839 | 0 | 5,782 | 1,453 | 15,875 | 348 |
| MARYLAND | 277,904 | 4,997 | 9,345 | 10,852 | 101,433 | 1,723 | 0 | 84,649 | 15,140 | 36,506 | 13,259 |
| MASSACHUSETTS | 311,404 | 3,561 | 10,590 | 8,210 | 43,036 | 4,070 | 73,107 | 95,449 | 6,775 | 55,094 | 11,512 |
| MICHIGAN | 361,036 | 15,003 | 31,807 | 22,241 | 89,090 | 13,439 | 0 | 71,464 | 23,449 | 86,339 | 8,204 |
| MINNESOTA | 462,214 | 56,147 | 25,937 | 29,951 | 110,288 | 20,407 | 0 | 48,860 | 10,267 | 160,357 | 0 |
| MISSISSIPPI | 164,372 | 22,147 | 8,125 | 4,482 | 40,704 | 3,224 | 25,007 | 14,386 | 2,263 | 42,681 | 1,353 |
| MISSOURI | 242,543 | 22,339 | 15,406 | 9,408 | 86,715 | 5,382 | 0 | 28,884 | 7,738 | 52,305 | 14,366 |
| NEBRASKA | 99,591 | 9,363 | 5,681 | 6,648 | 31,312 | 1,840 | 0 | 17,221 | 0 | 22,137 | 5,389 |
| NEVADA | 35,150 | 1,270 | 1,178 | 636 | 3,677 | 314 | 1,288 | 10,520 | 1,435 | 11,898 | 2,934 |
| NEW HAMPSHIRE | 48,698 | 2,545 | 1,986 | 1,945 | 10,615 | 1,281 | 13,515 | 7,064 | 987 | 8,130 | 630 |
| NEW JERSEY | 820,068 | 3,680 | 21,245 | 17,101 | 144,687 | 5,285 | 340,054 | 144,316 | 19,601 | 121,947 | 2,152 |
| NEW MEXICO | 56,353 | 4,778 | 3,028 | 1,831 | 13,845 | 3,844 | 9,005 | 7,005 | 568 | 10,573 | 1,876 |
| NEW YORK | 1,521,940 | 16,824 | 37,665 | 41,215 | 479,038 | 12,716 | 386,059 | 357,012 | 40,453 | 150,958 | 0 |
| NORTH CAROLINA | 631,903 | 31,069 | 41,844 | 67,595 | 91,977 | 23,644 | 15,638 | 76,221 | 20,910 | 152,953 | 110,052 |
| NORTH DAKOTA | 46,772 | 7,627 | 2,759 | 1,345 | 14,975 | 936 | 3,099 | 6,426 | 1,016 | 8,589 | 0 |
| OHIO | 825,487 | 44,421 | 63,886 | 38,722 | 158,555 | 15,194 | 0 | 58,422 | 5,665 | 124,842 | 315,780 |
| OKLAHOMA | 202,973 | 30,680 | 7,538 | 8,055 | 34,057 | 3,699 | 1,015 | 28,339 | 9,481 | 56,401 | 23,708 |
| OREGON | 217,904 | 7,976 | 12,055 | 7,865 | 48,971 | 2,579 | 50,666 | 43,061 | 5,756 | 38,877 | 98 |
| PENNSYLVANIA | 441,687 | 21,091 | 16,374 | 26,758 | 73,562 | 10,530 | 1,226 | 101,670 | 19,399 | 152,138 | 18,939 |
| RHODE ISLAND | 43,318 | 648 | 765 | 1,297 | 5,887 | 987 | 8,329 | 15,410 | 1,053 | 6,653 | 2,289 |
| SOUTH CAROLINA | 296,453 | 16,623 | 8,083 | 6,996 | 55,815 | 3,056 | 7,175 | 49,084 | 9,741 | 45,880 | 94,000 |
| SOUTH DAKOTA | 28,801 | 4,890 | 1,280 | 1,203 | 14,411 | 261 | 0 | 1,529 | 0 | 4,667 | 560 |
| TENNESSEE | 285,110 | 16,752 | 11,290 | 12,780 | 49,462 | 7,806 | 30,516 | 45,166 | 15,526 | 84,336 | 11,476 |
| TEXAS | 1,074,022 | 116,234 | 78,778 | 40,454 | 350,604 | 32,702 | 55,620 | 106,082 | 37,176 | 179,984 | 76,388 |

## TABLE E-3.--NUMBER OF ENROLLMENTS BY INSTRUCTIONAL PROGRAM AREAS BY STATE: UNITED STATES, OUTLYING AREAS 1978-79

| STATE | TOTAL | AGRI-CULTURE | DISTRI-BUTION | HEALTH | CONS, & HMMKG | OCCUP, HOME ECON | IND, ARTS | OFFICE OCCUP. | TECH-NICAL | TRADE & INDUS | OTHER NEC |
|---|---|---|---|---|---|---|---|---|---|---|---|
| UTAH | 85,792 | 4,284 | 6,544 | 3,411 | 12,490 | 2,805 | 7,180 | 18,582 | 1,051 | 27,207 | 2,238 |
| VERMONT | 29,736 | 1,785 | 866 | 611 | 7,814 | 512 | 0 | 5,183 | 301 | 12,039 | 625 |
| VIRGINIA | 450,969 | 35,504 | 41,710 | 7,368 | 86,414 | 6,585 | 55,010 | 93,592 | 9,318 | 71,807 | 43,661 |
| WASHINGTON | 404,066 | 22,389 | 30,954 | 16,825 | 102,200 | 16,568 | 4,635 | 75,450 | 15,171 | 99,650 | 20,224 |
| WEST VIRGINIA | 130,812 | 5,213 | 4,494 | 12,908 | 21,812 | 1,901 | 0 | 33,563 | 4,052 | 36,343 | 10,526 |
| WISCONSIN | 601,272 | 38,821 | 29,563 | 24,458 | 131,291 | 13,928 | 125,027 | 159,388 | 9,006 | 60,764 | 9,026 |
| WYOMING | 20,045 | 2,091 | 1,134 | 456 | 3,426 | 35 | 4,524 | 6,663 | 86 | 1,292 | 338 |
| TOTAL U.S. | 16,827,734 | 959,205 | 913,645 | 788,830 | 3,594,440 | 577,032 | 1,608,951 | 3,422,133 | 469,383 | 3,386,258 | 1,107,857 |
| AMERICAN SAMOA | 2,175 | 15 | 57 | 85 | 513 | 0 | 492 | 654 | 67 | 292 | 0 |
| NORTHERN MARIANAS | 1,671 | 401 | 0 | 0 | 371 | 0 | 269 | 50 | 0 | 565 | 15 |
| GUAM | 5,922 | 49 | 89 | 0 | 1,866 | 0 | 1,734 | 860 | 272 | 960 | 92 |
| PUERTO RICO | 191,458 | 4,168 | 14,138 | 2,240 | 59,735 | 780 | 70,274 | 15,862 | 2,478 | 21,783 | 0 |
| TRUST TERRITORY | 4,660 | 614 | 0 | 0 | 1,550 | 6 | 207 | 64 | 0 | 1,938 | 281 |
| OUTLYING AREAS | 205,886 | 5,247 | 14,284 | 2,325 | 64,035 | 786 | 72,976 | 17,490 | 2,817 | 25,538 | 388 |
| U.S. & OUTLYING AREAS | 17,033,620 | 964,452 | 927,929 | 791,155 | 3,658,475 | 577,818 | 1,681,927 | 3,439,623 | 472,200 | 3,411,796 | 1,108,245 |

## TABLE E-4.--NUMBER OF ENROLLMENTS BY RACIAL/ETHNIC DESIGNATION AND SEX BY STATE: UNITED STATES, OUTLYING AREAS 1978-79

| STATE | TOTAL | AMERICAN INDIAN/ ALASKAN NATIVE |  | ASIAN AMERICAN/ PACIFIC ISLANDER |  | BLACK, NOT HISPANIC |  | HISPANIC |  | WHITE, NOT HISPANIC |  |
|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  | MALE | FEMALE | MALE | FEMALE | MALE | FEMALE | MALE | FEMALE | MALE | FEMALE |
| ALABAMA | 206,193 | 71 | 82 | 121 | 81 | 35,657 | 36,108 | 276 | 153 | 70,308 | 63,336 |
| ALASKA | 37,984 | 5,668 | 5,891 | 282 | 272 | 528 | 705 | 204 | 230 | 12,834 | 11,370 |
| ARIZONA | 115,148 | 5,328 | 5,495 | 502 | 433 | 1,044 | 2,430 | 9,091 | 12,432 | 26,953 | 51,440 |
| ARKANSAS | 108,482 | 152 | 59 | 85 | 322 | 13,152 | 19,472 | 153 | 909 | 38,651 | 35,527 |
| CALIFORNIA | 1,676,506 | 10,251 | 9,621 | 43,095 | 39,914 | 78,219 | 92,314 | 128,248 | 139,872 | 576,415 | 558,557 |
| COLORADO | 115,262 | 590 | 682 | 636 | 687 | 2,395 | 3,619 | 6,219 | 8,383 | 41,824 | 50,227 |
| CONNECTICUT | 200,379 | 263 | 216 | 338 | 365 | 11,058 | 15,802 | 4,161 | 5,049 | 71,876 | 91,251 |
| DELAWARE | 53,849 | 143 | 179 | 130 | 152 | 5,218 | 7,223 | 252 | 302 | 21,565 | 18,685 |
| DISTRICT OF COLUMBIA | 22,436 | 0 | 0 | 0 | 0 | 11,870 | 10,402 | 6 | 14 | 62 | 82 |
| FLORIDA | 855,567 | 1,222 | 1,253 | 3,678 | 3,348 | 89,767 | 107,944 | 31,384 | 35,221 | 295,974 | 285,776 |
| GEORGIA | 381,699 | 743 | 522 | 544 | 510 | 57,175 | 67,400 | 494 | 423 | 124,404 | 129,484 |
| HAWAII | 49,691 | 40 | 66 | 16,586 | 21,062 | 176 | 265 | 782 | 637 | 4,241 | 5,546 |
| IDAHO | 33,580 | 198 | 282 | 120 | 127 | 50 | 39 | 382 | 533 | 14,223 | 17,626 |
| ILLINOIS | 731,817 | 557 | 542 | 2,459 | 2,421 | 54,579 | 60,748 | 11,353 | 10,514 | 297,978 | 290,666 |
| INDIANA | 153,874 | 148 | 114 | 238 | 173 | 6,590 | 6,751 | 1,125 | 1,098 | 67,969 | 69,668 |
| IOWA | 123,322 | 54 | 101 | 150 | 222 | 817 | 1,420 | 209 | 301 | 53,371 | 66,677 |
| KANSAS | 87,202 | 472 | 622 | 2,702 | 3,952 | 460 | 417 | 872 | 1,092 | 33,564 | 43,049 |
| KENTUCKY | 206,991 | 43 | 50 | 116 | 116 | 8,563 | 11,679 | 62 | 38 | 90,759 | 95,565 |
| LOUISIANA | 208,975 | 222 | 329 | 502 | 410 | 33,980 | 46,297 | 737 | 503 | 60,423 | 65,572 |
| MAINE | 22,162 | 77 | 46 | 16 | 6 | 19 | 10 | 12 | 17 | 9,925 | 12,034 |
| MARYLAND | 229,766 | 782 | 1,095 | 1,443 | 2,529 | 22,728 | 40,974 | 802 | 1,171 | 58,963 | 99,279 |
| MASSACHUSETTS | 281,243 | 76 | 120 | 692 | 759 | 5,184 | 3,959 | 2,480 | 2,449 | 138,395 | 127,129 |
| MICHIGAN | 310,560 | 1,271 | 1,240 | 562 | 604 | 13,646 | 19,887 | 1,719 | 2,491 | 117,817 | 151,323 |
| MINNESOTA | 204,534 | 1,165 | 654 | 589 | 451 | 1,577 | 2,151 | 747 | 861 | 92,922 | 103,417 |
| MISSISSIPPI | 121,620 | 35 | 49 | 98 | 165 | 29,045 | 27,147 | 62 | 124 | 36,103 | 28,792 |
| MISSOURI | 203,498 | 458 | 589 | 228 | 289 | 11,331 | 20,748 | 373 | 490 | 73,201 | 95,791 |
| NEBRASKA | 71,972 | 348 | 327 | 84 | 222 | 1,625 | 1,893 | 483 | 637 | 31,585 | 34,768 |
| NEVADA | 31,222 | 372 | 339 | 231 | 186 | 1,286 | 1,255 | 715 | 577 | 14,676 | 11,585 |
| NEW HAMPSHIRE | 48,112 | 38 | 65 | 32 | 35 | 90 | 48 | 31 | 22 | 27,012 | 20,739 |
| NEW JERSEY | 679,858 | 312 | 277 | 3,978 | 3,536 | 62,596 | 52,465 | 25,403 | 19,975 | 281,588 | 229,728 |
| NEW MEXICO | 53,437 | 1,855 | 1,703 | 91 | 81 | 539 | 706 | 11,406 | 12,589 | 12,428 | 12,039 |
| NEW YORK | 1,224,819 | 2,748 | 2,167 | 4,534 | 5,777 | 106,938 | 143,385 | 29,332 | 43,648 | 482,423 | 403,867 |
| NORTH CAROLINA | 379,177 | 2,710 | 2,556 | 305 | 211 | 57,144 | 60,316 | 590 | 418 | 148,309 | 106,618 |
| NORTH DAKOTA | 35,760 | 632 | 544 | 9 | 31 | 18 | 28 | 44 | 30 | 17,974 | 16,450 |
| OHIO | 612,514 | 392 | 440 | 713 | 698 | 57,786 | 63,972 | 4,218 | 4,135 | 222,025 | 258,135 |
| OKLAHOMA | 139,350 | 4,708 | 5,643 | 696 | 609 | 4,770 | 5,863 | 770 | 704 | 60,649 | 54,938 |
| OREGON | 187,133 | 584 | 474 | 741 | 549 | 966 | 728 | 857 | 640 | 93,543 | 88,051 |
| PENNSYLVANIA | 323,592 | 307 | 318 | 837 | 455 | 17,557 | 23,010 | 1,559 | 1,480 | 123,886 | 154,583 |
| RHODE ISLAND | 35,949 | 9 | 16 | 21 | 32 | 726 | 1,098 | 47 | 77 | 14,367 | 19,596 |
| SOUTH CAROLINA | 214,161 | 1,812 | 375 | 269 | 249 | 44,729 | 54,578 | 242 | 146 | 56,400 | 55,361 |
| SOUTH DAKOTA | 25,750 | 409 | 398 | 16 | 34 | 16 | 40 | 27 | 72 | 10,254 | 14,484 |
| TENNESSEE | 222,414 | 485 | 330 | 264 | 162 | 26,171 | 27,477 | 213 | 110 | 93,554 | 73,648 |
| TEXAS | 777,451 | 1,379 | 1,969 | 2,813 | 2,606 | 61,525 | 76,753 | 75,362 | 81,812 | 235,561 | 237,671 |

### TABLE E-4.--NUMBER OF ENROLLMENTS BY RACIAL/ETHNIC DESIGNATION AND SEX BY STATE: UNITED STATES, OUTLYING AREAS 1978-79

| STATE | TOTAL | AMERICAN INDIAN/ ALASKAN NATIVE | | ASIAN AMERICAN/ PACIFIC ISLANDER | | BLACK, NOT HISPANIC | | HISPANIC | | WHITE, NOT HISPANIC | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MALE | FEMALE | MALE | FEMALE | MALE | FEMALE | MALE | FEMALE | MALE | FEMALE |
| UTAH | 83,583 | 637 | 555 | 660 | 457 | 154 | 127 | 1,075 | 904 | 43,134 | 35,880 |
| VERMONT | 17,667 | 0 | 23 | 4 | 8 | 10 | 13 | 4 | 8 | 7,154 | 10,443 |
| VIRGINIA | 330,494 | 201 | 310 | 1,119 | 1,105 | 36,063 | 45,802 | 771 | 662 | 126,426 | 118,035 |
| WASHINGTON | 238,852 | 2,015 | 2,700 | 1,644 | 2,043 | 1,858 | 2,086 | 3,392 | 4,460 | 97,654 | 121,000 |
| WEST VIRGINIA | 81,167 | 341 | 287 | 88 | 112 | 2,226 | 2,368 | 29 | 34 | 35,265 | 40,417 |
| WISCONSIN | 469,523 | 872 | 1,013 | 341 | 328 | 3,974 | 5,818 | 1,907 | 1,309 | 239,615 | 214,346 |
| WYOMING | 19,022 | 2 | 0 | 1 | 2 | 28 | 42 | 237 | 444 | 9,647 | 8,619 |
| TOTAL U.S. | 13,046,269 | 53,197 | 52,728 | 95,003 | 98,898 | 983,623 | 1,175,782 | 360,919 | 400,800 | 4,915,849 | 4,909,870 |
| AMERICAN SAMOA | 2,175 | 0 | 0 | 1,021 | 1,151 | 0 | 0 | 0 | 0 | 0 | 3 |
| NORTHERN MARIANAS | 1,671 | 0 | 0 | 873 | 796 | 0 | 0 | 0 | 0 | 0 | 2 |
| GUAM | 5,461 | 0 | 0 | 2,885 | 1,975 | 13 | 11 | 0 | 0 | 335 | 242 |
| PUERTO RICO | 168,313 | 0 | 0 | 0 | 0 | 0 | 0 | 92,546 | 75,767 | 0 | 0 |
| TRUST TERRITORY | 4,660 | 0 | 0 | 2,716 | 1,943 | 0 | 0 | 0 | 0 | 0 | 1 |
| OUTLYING AREAS | 182,280 | 0 | 0 | 7,495 | 5,865 | 13 | 11 | 92,546 | 75,767 | 335 | 248 |
| U.S. & OUTLYING AREAS | 13,228,549 | 53,197 | 52,728 | 102,498 | 104,763 | 983,636 | 1,175,793 | 453,465 | 476,167 | 4,916,184 | 4,910,118 |

## TABLE E-5.--NUMBER OF ENROLLMENTS BY PROGRAM LEVEL BY STATE: UNITED STATES, OUTLYING AREAS 1978-79

| STATE | ENROLLMENT BY PROGRAM LEVEL<br>TOTAL | BELOW GRADE 11 | GRADES 11&12 | POST-SECONDARY | ADULT (LONG-TERM) | ADULT (SHORT-TERM) |
|---|---|---|---|---|---|---|
| ALABAMA | 206,193 | 83,110 | 75,787 | 17,616 | 29,680 | 15,293 |
| ALASKA | 37,984 | 12,112 | 12,170 | 10,884 | 2,818 | 1,636 |
| ARIZONA | 115,148 | 55,806 | 59,342 | 0 | 0 | 46,392 |
| ARKANSAS | 108,482 | 34,983 | 64,503 | 527 | 8,469 | 30,253 |
| CALIFORNIA | 1,676,506 | 367,484 | 570,808 | 540,695 | 197,519 | 193,178 |
| COLORADO | 115,262 | 19,778 | 49,396 | 19,275 | 26,813 | 30,470 |
| CONNECTICUT | 200,379 | 120,810 | 62,762 | 10,153 | 6,634 | 8,937 |
| DELAWARE | 54,849 | 31,108 | 12,586 | 6,491 | 4,664 | 10,447 |
| DISTRICT OF COLUMBIA | 22,436 | 9,494 | 11,374 | 598 | 970 | 812 |
| FLORIDA | 855,567 | 445,276 | 247,329 | 62,840 | 100,122 | 296,857 |
| GEORGIA | 381,699 | 221,184 | 121,901 | 36,702 | 1,912 | 50,588 |
| HAWAII | 49,601 | 10,426 | 25,775 | 9,398 | 4,002 | 8,125 |
| IDAHO | 33,580 | 12,078 | 16,657 | 4,627 | 218 | 10,631 |
| ILLINOIS | 731,817 | 250,014 | 305,596 | 140,199 | 36,008 | 70,336 |
| INDIANA | 153,874 | 44,818 | 64,712 | 38,154 | 6,190 | 69,205 |
| IOWA | 123,322 | 27,133 | 62,728 | 9,487 | 23,974 | 204,901 |
| KANSAS | 87,202 | 26,707 | 37,348 | 9,366 | 13,781 | 24,396 |
| KENTUCKY | 206,991 | 92,503 | 91,584 | 4,372 | 18,532 | 65,555 |
| LOUISIANA | 208,975 | 95,175 | 88,004 | 0 | 25,796 | 37,601 |
| MAINE | 22,162 | 5,219 | 13,505 | 1,116 | 2,322 | 21,197 |
| MARYLAND | 229,766 | 106,033 | 80,026 | 43,707 | 0 | 48,138 |
| MASSACHUSETTS | 281,243 | 48,701 | 209,161 | 21,155 | 2,226 | 30,161 |
| MICHIGAN | 310,560 | 47,149 | 168,470 | 83,826 | 11,115 | 50,476 |
| MINNESOTA | 204,534 | 0 | 163,353 | 41,181 | 0 | 257,680 |
| MISSISSIPPI | 121,620 | 60,452 | 44,344 | 6,508 | 10,316 | 42,752 |
| MISSOURI | 203,498 | 0 | 160,749 | 22,759 | 19,990 | 39,045 |
| NEBRASKA | 71,972 | 16,669 | 35,560 | 15,527 | 4,216 | 27,619 |
| NEVADA | 31,222 | 12,499 | 13,309 | 3,841 | 1,573 | 3,928 |
| NEW HAMPSHIRE | 48,112 | 14,911 | 26,841 | 5,875 | 485 | 586 |
| NEW JERSEY | 679,858 | 440,524 | 192,597 | 36,329 | 10,408 | 140,210 |
| NEW MEXICO | 53,437 | 21,822 | 20,728 | 536 | 10,351 | 2,916 |
| NEW YORK | 1,224,819 | 305,789 | 685,748 | 147,364 | 85,918 | 297,121 |
| NORTH CAROLINA | 379,177 | 186,200 | 96,746 | 66,727 | 29,504 | 252,726 |
| NORTH DAKOTA | 35,760 | 8,735 | 21,663 | 3,144 | 2,218 | 11,012 |
| OHIO | 612,514 | 372,924 | 197,094 | 18,933 | 23,563 | 212,973 |
| OKLAHOMA | 139,350 | 50,808 | 43,944 | 40,122 | 4,476 | 63,623 |
| OREGON | 187,133 | 33,272 | 106,492 | 38,002 | 9,367 | 30,771 |
| PENNSYLVANIA | 323,592 | 81,475 | 181,113 | 43,557 | 17,447 | 118,095 |
| RHODE ISLAND | 35,989 | 10,717 | 21,768 | 3,504 | 0 | 7,329 |
| SOUTH CAROLINA | 214,161 | 68,387 | 88,854 | 39,615 | 17,305 | 82,292 |
| SOUTH DAKOTA | 25,750 | 11,073 | 11,634 | 0 | 3,043 | 3,051 |

## TABLE E-5.--NUMBER OF ENROLLMENTS BY PROGRAM LEVEL BY STATE: UNITED STATES, OUTLYING AREAS 1978-79

| STATE | ---------- | ---------- | ENROLLMENT BY PROGRAM LEVEL | ---------- | ---------- | ---------- |
|---|---|---|---|---|---|---|
| | TOTAL | BELOW GRADE 11 | GRADES 11&12 | POST-SECONDARY | ADULT (LONG-TERM) | ADULT (SHORT-TERM) |
| TENNESSEE | 222,414 | 101,294 | 73,106 | 28,739 | 14,275 | 62,696 |
| TEXAS | 777,451 | 320,339 | 253,576 | 154,223 | 49,313 | 296,571 |
| UTAH | 83,583 | 52,630 | 30,848 | 19,354 | 751 | 2,209 |
| VERMONT | 17,667 | 5,895 | 11,598 | 0 | 174 | 12,069 |
| VIRGINIA | 330,494 | 77,229 | 195,905 | 35,860 | 21,496 | 120,875 |
| WASHINGTON | 238,852 | 0 | 134,692 | 46,596 | 57,564 | 165,214 |
| WEST VIRGINIA | 81,167 | 21,796 | 43,535 | 12,004 | 3,827 | 49,645 |
| WISCONSIN | 469,523 | 378,639 | 14,365 | 44,918 | 31,601 | 131,749 |
| WYOMING | 19,022 | 8,160 | 10,374 | 343 | 145 | 1,023 |
| TOTAL U.S. | 13,046,269 | 4,809,340 | 5,332,080 | 1,946,758 | 958,091 | 3,781,465 |
| AMERICAN SAMOA | 2,175 | 972 | 759 | 414 | 30 | 0 |
| NORTHERN MARIANAS | 1,671 | 1,427 | 244 | 0 | 0 | 0 |
| GUAM | 5,461 | 3,136 | 1,527 | 292 | 506 | 461 |
| PUERTO RICO | 168,313 | 115,799 | 39,742 | 1,839 | 10,933 | 23,145 |
| TRUST TERRITORY | 4,660 | 2,863 | 1,542 | 255 | 0 | 0 |
| OUTLYING AREAS | 182,280 | 124,197 | 43,814 | 2,800 | 11,469 | 23,606 |
| U.S. & OUTLYING AREAS | 13,228,549 | 4,933,537 | 5,375,894 | 1,949,558 | 969,560 | 3,805,071 |

## TABLE E-6.--NUMBER OF ENROLLMENTS BY PROGRAM LEVEL BY PROGRAM: UNITED STATES, OUTLYING AREAS 1978-79

| PROGRAM | TOTAL | ENROLLMENT BY PROGRAM LEVEL<br>BELOW GRADE 11 | GRADES 11&12 | POST-SECONDARY | ADULT (LONG-TERM) | ADULT (SHORT-TERM) |
|---|---|---|---|---|---|---|
| AGRICULTURE | 763,697 | 354,644 | 337,954 | 49,038 | 22,061 | 200,755 |
| DISTRIBUTION | 644,177 | 68,706 | 300,086 | 216,365 | 57,020 | 283,752 |
| HEALTH OCCUPATIONS | 436,249 | 30,201 | 90,799 | 216,722 | 98,527 | 354,906 |
| PREP. FOR OCCUP. OF HOMEMAKING | 2,838,420 | 1,363,882 | 1,396,653 | 30,095 | 47,790 | 820,055 |
| OCCUPATIONAL HOME ECONOMICS | 445,979 | 175,547 | 182,099 | 61,177 | 27,156 | 131,839 |
| OFFICE OCCUPATIONS | 2,887,981 | 728,353 | 1,315,080 | 640,692 | 203,856 | 551,642 |
| TECHNICAL | 374,426 | 8,874 | 18,746 | 306,126 | 40,680 | 97,774 |
| TRADE & INDUSTRIAL OCCUPATIONS | 2,253,715 | 455,385 | 990,289 | 378,451 | 429,590 | 1,158,081 |
| INDUSTRIAL ARTS | 1,665,311 | 1,113,446 | 550,531 | 1,309 | 25 | 16,616 |
| OTHER NEC | 918,594 | 634,499 | 193,657 | 47,583 | 42,855 | 189,651 |
| TOTAL | 13,228,549 | 4,933,537 | 5,375,894 | 1,949,558 | 969,560 | 3,805,071 |

TABLE I-7.-- NUMBER OF ENROLLMENTS IN OCCUPATIONALLY SPECIFIC PROGRAMS BY LEVEL BY STATE:
UNITED STATES, OUTLYING AREAS 1978-79.

|  | ------------- ENROLLMENT BY PROGRAM LEVEL |  |  |  |  |
|---|---|---|---|---|---|
| STATE | TOTAL | GRADES 11 & 12 | POST-SECONDARY | ADULT (LONG-TERM) | ADULT (SHORT-TERM) -------------- |
| ALABAMA | 101,818 | 58,206 | 15,401 | 28,211 | 14,677 |
| ALASKA | 21,611 | 8,776 | 10,249 | 2,586 | 1,036 |
| ARIZONA | 24,146 | 24,146 | 0 | 0 | 0 |
| ARKANSAS | 35,870 | 26,874 | 527 | 8,469 | 28,178 |
| CALIFORNIA | 1,076,944 | 372,787 | 519,277 | 184,880 | 164,006 |
| COLORADO | 81,625 | 35,910 | 19,006 | 26,709 | 20,138 |
| CONNECTICUT | 52,287 | 35,704 | 10,153 | 6,430 | 8,937 |
| DELAWARE | 17,988 | 6,833 | 6,491 | 4,664 | 10,947 |
| DISTRICT OF COLUMBIA | 12,942 | 11,374 | 598 | 970 | 812 |
| FLORIDA | 248,572 | 122,541 | 62,407 | 63,624 | 92,385 |
| GEORGIA | 113,731 | 86,651 | 25,168 | 1,912 | 0 |
| HAWAII | 31,991 | 18,591 | 9,398 | 4,002 | 2,803 |
| IDAHO | 14,026 | 9,558 | 4,250 | 218 | 8,503 |
| ILLINOIS | 352,263 | 216,657 | 104,924 | 30,682 | 57,382 |
| INDIANA | 67,247 | 34,573 | 28,374 | 4,300 | 28,890 |
| IOWA | 58,061 | 26,736 | 9,487 | 21,838 | 3,965 |
| KANSAS | 43,965 | 20,818 | 9,366 | 13,781 | 23,209 |
| KENTUCKY | 63,793 | 50,475 | 1,360 | 11,958 | 62,518 |
| LOUISIANA | 77,766 | 54,261 | 0 | 23,505 | 34,678 |
| MAINE | 12,281 | 8,987 | 972 | 2,322 | 21,137 |
| MARYLAND | 100,113 | 56,406 | 43,707 | 0 | 39,671 |
| MASSACHUSETTS | 69,816 | 55,994 | 11,611 | 2,211 | 20,141 |
| MICHIGAN | 186,395 | 114,434 | 63,356 | 8,605 | 46,133 |
| MINNESOTA | 141,137 | 99,956 | 41,181 | 0 | 210,789 |
| MISSISSIPPI | 41,734 | 24,910 | 6,508 | 10,316 | 42,752 |
| MISSOURI | 107,064 | 67,482 | 21,671 | 17,911 | 34,398 |
| NEBRASKA | 37,138 | 18,925 | 13,997 | 4,216 | 19,356 |
| NEVADA | 11,188 | 5,956 | 3,841 | 1,391 | 3,752 |
| NEW HAMPSHIRE | 11,133 | 8,168 | 2,758 | 207 | 208 |
| NEW JERSEY | 91,591 | 44,854 | 36,329 | 10,408 | 0 |
| NEW MEXICO | 23,727 | 12,840 | 536 | 10,351 | 1,046 |
| NEW YORK | 561,630 | 329,511 | 146,511 | 85,608 | 27,192 |
| NORTH CAROLINA | 166,718 | 70,487 | 66,727 | 29,504 | 213,695 |
| NORTH DAKOTA | 19,030 | 13,668 | 3,144 | 2,218 | 8,146 |
| OHIO | 181,588 | 139,092 | 18,933 | 23,563 | 176,937 |
| OKLAHOMA | 67,573 | 30,199 | 32,898 | 4,476 | 20,760 |
| OREGON | 78,571 | 31,202 | 38,002 | 9,367 | 6,931 |
| PENNSYLVANIA | 195,543 | 138,308 | 40,962 | 16,273 | 27,503 |
| RHODE ISLAND | 18,087 | 14,583 | 3,504 | 0 | 7,329 |
| SOUTH CAROLINA | 105,020 | 57,280 | 33,795 | 13,945 | 0 |
| SOUTH DAKOTA | 9,723 | 6,680 | 0 | 3,043 | 2,065 |
| TENNESSEE | 98,965 | 51,088 | 28,681 | 19,196 | 55,970 |
| TEXAS | 339,310 | 135,928 | 154,223 | 49,159 | 139,810 |
| UTAH | 44,220 | 24,738 | 19,142 | 340 | 1,066 |

143

TABLE E-7.-- NUMBER OF ENROLLMENTS IN OCCUPATIONALLY SPECIFIC PROGRAMS BY LEVEL BY STATE: UNITED STATES, OUTLYING AREAS 1978-79.

| STATE | ------------ ENROLLMENT BY PROGRAM LEVEL ------------ | | | | |
|---|---|---|---|---|---|
| | TOTAL | GRADES 11 & 12 | POST-SECONDARY | ADULT (LONG-TERM) | ADULT (SHORT-TERM) |
| VERMONT | 9,030 | 8,856 | 0 | 174 | 5,762 |
| VIRGINIA | 154,257 | 96,934 | 35,864 | 21,459 | 65,344 |
| WASHINGTON | 151,349 | 77,568 | 46,596 | 27,185 | 143,434 |
| WEST VIRGINIA | 50,152 | 34,355 | 12,009 | 3,788 | 21,177 |
| WISCONSIN | 62,629 | 14,365 | 27,142 | 21,122 | 7,815 |
| WYOMING | 3,491 | 3,003 | 343 | 145 | 416 |
| TOTAL U.S. | 5,646,849 | 3,018,228 | 1,791,379 | 837,242 | 1,934,855 |
| AMERICAN SAMOA | 1,170 | 726 | 414 | 30 | 0 |
| NORTHERN MARIANAS | 178 | 178 | 0 | 0 | 0 |
| GUAM | 1,382 | 584 | 292 | 506 | 461 |
| PUERTO RICO | 31,239 | 18,467 | 1,839 | 10,933 | 8,324 |
| TRUST TERRITORY | 1,479 | 1,224 | 255 | 0 | 0 |
| OUTLYING AREAS | 35,448 | 21,179 | 2,800 | 11,469 | 8,785 |
| U.S. AND OUTLYING AREAS | 5,682,297 | 3,039,407 | 1,794,179 | 848,711 | 1,943,640 |

TABLE I-F.-- NUMBER OF ENROLLMENTS IN OCCUPATIONALLY SPECIFIC PROGRAMS BY RACIAL/ETHNIC DESIGNATION AND SEX BY STATE: UNITED STATES, OUTLYING AREAS 1978-79.

| STATE | TOTAL | AMERICAN INDIAN/ ALASKAN NATIVE |  | ASIAN AMERICAN/ PACIFIC ISLANDER |  | BLACK, NOT HISPANIC |  | HISPANIC |  | WHITE, NOT HISPANIC |  |
|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  | MALE | FEMALE | MALE | FEMALE | MALE | FEMALE | MALE | FEMALE | MALE | FEMALE |
| ALABAMA | 101,818 | 86 | 12 | 94 | 41 | 19,446 | 13,932 | 256 | 126 | 40,525 | 27,333 |
| ALASKA | 21,611 | 1,841 | 1,827 | 180 | 223 | 339 | 449 | 149 | 172 | 8,897 | 7,534 |
| ARIZONA | 24,146 | 2,631 | 1,387 | 225 | 119 | 201 | 428 | 1,866 | 2,642 | 6,356 | 8,291 |
| ARKANSAS | 35,870 | 78 | 23 | 39 | 19 | 4,269 | 3,090 | 79 | 48 | 17,242 | 10,983 |
| CALIFORNIA | 1,075,944 | 7,147 | 6,548 | 31,054 | 28,157 | 56,800 | 61,050 | 78,274 | 80,553 | 369,293 | 358,028 |
| COLORADO | 81,625 | 466 | 387 | 561 | 470 | 1,915 | 2,400 | 4,586 | 4,623 | 33,478 | 32,739 |
| CONNECTICUT | 52,287 | 39 | 37 | 76 | 105 | 3,088 | 4,053 | 856 | 1,045 | 20,461 | 22,527 |
| DELAWARE | 17,988 | 30 | 21 | 17 | 17 | 1,422 | 2,265 | 41 | 61 | 7,677 | 6,417 |
| DISTRICT OF COLUMBIA | 12,942 | 0 | 0 | 0 | 0 | 4,534 | 8,395 | 0 | 3 | 7 | 3 |
| FLORIDA | 248,572 | 267 | 306 | 1,091 | 903 | 20,098 | 22,949 | 7,876 | 9,081 | 99,210 | 86,791 |
| GEORGIA | 113,731 | 202 | 99 | 165 | 126 | 16,319 | 16,969 | 187 | 134 | 40,875 | 38,655 |
| HAWAII | 31,991 | 26 | 22 | 12,189 | 12,690 | 121 | 98 | 624 | 457 | 2,920 | 2,844 |
| IDAHO | 14,026 | 91 | 112 | 68 | 52 | 23 | 15 | 147 | 149 | 6,732 | 6,637 |
| ILLINOIS | 352,263 | 347 | 364 | 1,364 | 1,438 | 25,775 | 33,589 | 5,480 | 5,841 | 140,709 | 137,354 |
| INDIANA | 67,247 | 108 | 56 | 166 | 70 | 3,056 | 2,199 | 742 | 253 | 44,295 | 16,302 |
| IOWA | 58,061 | 36 | 35 | 105 | 54 | 297 | 238 | 149 | 103 | 32,285 | 24,759 |
| KANSAS | 43,965 | 302 | 292 | 1,680 | 1,546 | 376 | 256 | 583 | 428 | 20,512 | 17,990 |
| KENTUCKY | 63,793 | 5 | 4 | 37 | 29 | 2,681 | 2,862 | 34 | 13 | 31,041 | 27,087 |
| LOUISIANA | 77,766 | 73 | 69 | 261 | 196 | 13,711 | 14,711 | 308 | 227 | 24,657 | 23,553 |
| MAINE | 12,281 | 69 | 20 | 15 | 4 | 18 | 3 | 12 | 7 | 8,201 | 3,932 |
| MARYLAND | 100,113 | 270 | 288 | 533 | 562 | 10,100 | 15,468 | 366 | 375 | 32,446 | 39,685 |
| MASSACHUSETTS | 69,816 | 65 | 33 | 109 | 73 | 1,698 | 1,090 | 765 | 443 | 42,785 | 22,755 |
| MICHIGAN | 186,395 | 840 | 582 | 335 | 311 | 7,778 | 9,324 | 1,115 | 1,464 | 85,483 | 79,163 |
| MINNESOTA | 141,137 | 1,109 | 528 | 521 | 202 | 1,283 | 998 | 604 | 486 | 78,363 | 57,043 |
| MISSISSIPPI | 41,734 | 14 | 17 | 31 | 33 | 10,098 | 6,029 | 23 | 16 | 16,313 | 9,160 |
| MISSOURI | 107,064 | 379 | 363 | 190 | 180 | 5,633 | 7,326 | 308 | 300 | 56,815 | 35,570 |
| NEBRASKA | 37,138 | 174 | 96 | 64 | 47 | 1,032 | 786 | 209 | 243 | 19,534 | 14,948 |
| NEVADA | 11,188 | 122 | 101 | 68 | 63 | 514 | 460 | 287 | 219 | 5,442 | 3,912 |
| NEW HAMPSHIRE | 11,133 | 16 | 26 | 9 | 10 | 25 | 14 | 9 | 3 | 5,987 | 5,034 |
| NEW JERSEY | 91,591 | 102 | 76 | 433 | 369 | 5,916 | 5,643 | 1,451 | 1,561 | 42,434 | 33,106 |
| NEW MEXICO | 23,727 | 819 | 662 | 44 | 37 | 224 | 227 | 5,117 | 5,023 | 6,407 | 5,167 |
| NEW YORK | 561,630 | 829 | 1,208 | 3,000 | 4,111 | 34,302 | 64,683 | 15,927 | 30,116 | 178,567 | 228,887 |
| NORTH CAROLINA | 166,718 | 1,212 | 1,003 | 202 | 139 | 22,176 | 19,855 | 505 | 305 | 70,261 | 51,060 |
| NORTH DAKOTA | 19,030 | 430 | 293 | 7 | 13 | 15 | 15 | 20 | 15 | 10,946 | 7,276 |
| OHIO | 181,588 | 155 | 155 | 119 | 93 | 13,884 | 14,721 | 459 | 686 | 79,151 | 71,665 |
| OKLAHOMA | 67,573 | 2,181 | 1,999 | 395 | 260 | 2,964 | 3,151 | 428 | 295 | 32,435 | 23,465 |
| OREGON | 78,571 | 464 | 415 | 563 | 475 | 567 | 549 | 560 | 528 | 39,743 | 34,707 |
| PENNSYLVANIA | 195,543 | 177 | 170 | 338 | 265 | 9,791 | 12,386 | 742 | 701 | 82,164 | 88,734 |
| RHODE ISLAND | 18,087 | 9 | 13 | 21 | 22 | 320 | 551 | 42 | 28 | 5,101 | 11,980 |
| SOUTH CAROLINA | 105,020 | 402 | 324 | 234 | 132 | 22,617 | 18,308 | 195 | 92 | 35,759 | 26,957 |
| SOUTH DAKOTA | 9,723 | 288 | 149 | 14 | 3 | 11 | 4 | 13 | 11 | 6,189 | 3,041 |
| TENNESSEE | 98,965 | 189 | 129 | 167 | 105 | 11,059 | 11,885 | 147 | 75 | 43,150 | 32,059 |
| TEXAS | 339,310 | 629 | 551 | 1,999 | 1,637 | 22,742 | 25,676 | 32,532 | 29,466 | 123,447 | 100,631 |

TABLE F-8.-- NUMBER OF ENROLLMENTS IN OCCUPATIONALLY SPECIFIC PROGRAMS BY RACIAL/ETHNIC DESIGNATION AND SEX BY STATE: UNITED STATES, OUTLYING AREAS 1978-79.

| STATE | TOTAL | AMERICAN INDIAN/ ALASKAN NATIVE MALE | AMERICAN INDIAN/ ALASKAN NATIVE FEMALE | ASIAN AMERICAN/ PACIFIC ISLANDER MALE | ASIAN AMERICAN/ PACIFIC ISLANDER FEMALE | BLACK, NOT HISPANIC MALE | BLACK, NOT HISPANIC FEMALE | HISPANIC MALE | HISPANIC FEMALE | WHITE, NOT HISPANIC MALE | WHITE, NOT HISPANIC FEMALE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| UTAH | 44,220 | 376 | 250 | 524 | 297 | 116 | 76 | 643 | 405 | 24,703 | 16,830 |
| VERMONT | 9,030 | 0 | 0 | 4 | 0 | 5 | 2 | 0 | 2 | 4,796 | 4,221 |
| VIRGINIA | 154,257 | 96 | 189 | 489 | 441 | 17,489 | 16,133 | 403 | 272 | 63,321 | 53,424 |
| WASHINGTON | 151,349 | 1,548 | 1,586 | 1,273 | 1,168 | 1,533 | 1,316 | 2,559 | 2,532 | 71,008 | 66,826 |
| WEST VIRGINIA | 50,152 | 214 | 155 | 72 | 95 | 1,539 | 1,537 | 19 | 23 | 23,016 | 23,482 |
| WISCONSIN | 62,629 | 108 | 147 | 124 | 54 | 936 | 1,146 | 227 | 154 | 36,390 | 23,343 |
| WYOMING | 3,491 | 2 | 0 | 1 | 2 | 1 | 7 | 13 | 17 | 1,714 | 1,734 |
| TOTAL U.S. | 5,646,849 | 27,045 | 23,136 | 61,290 | 57,458 | 380,857 | 431,357 | 169,007 | 181,822 | 2,279,253 | 2,035,624 |
| AMERICAN SAMOA | 1,170 | 0 | 0 | 521 | 646 | 0 | 0 | 0 | 0 | 0 | 3 |
| NORTHERN MARIANAS | 178 | 0 | 0 | 103 | 73 | 0 | 0 | 0 | 0 | 0 | 2 |
| GUAM | 1,382 | 0 | 0 | 818 | 414 | 0 | 1 | 0 | 0 | 92 | 57 |
| PUERTO RICO | 31,239 | 0 | 0 | 0 | 0 | 0 | 0 | 16,763 | 14,476 | 0 | 0 |
| TRUST TERRITORY | 1,479 | 0 | 0 | 1,167 | 312 | 0 | 0 | 0 | 0 | 0 | 0 |
| OUTLYING AREAS | 35,448 | 0 | 0 | 2,609 | 1,445 | 0 | 1 | 16,763 | 14,476 | 92 | 62 |
| U.S. & OUTLYING AREAS | 5,682,297 | 27,045 | 23,136 | 63,899 | 58,903 | 380,857 | 431,358 | 185,770 | 196,298 | 2,279,345 | 2,035,686 |

TABLE E-9.-- NUMBER OF ENROLLMENTS IN COOPERATIVE EDUCATION PROGRAMS BY STATE: UNITED STATES, OUTLYING AREAS 1978-79.

| STATE | COOPERATIVE VOCATIONAL EDUCATION ENROLLMENT |
|---|---|
| ALABAMA | 13,183 |
| ALASKA | 656 |
| ARIZONA | 0 |
| ARKANSAS | 5,950 |
| CALIFORNIA | 25,352 |
| COLORADO | 8,708 |
| CONNECTICUT | 5,444 |
| DELAWARE | 2,540 |
| DISTRICT OF COLUMBIA | 1,121 |
| FLORIDA | 33,468 |
| GEORGIA | 19,855 |
| HAWAII | 2,240 |
| IDAHO | 4,026 |
| ILLINOIS | 35,412 |
| INDIANA | 772 |
| IOWA | 0 |
| KANSAS | 4,313 |
| KENTUCKY | 5,689 |
| LOUISIANA | 6,346 |
| MAINE | 1,950 |
| MARYLAND | 10,471 |
| MASSACHUSETTS | 4,320 |
| MICHIGAN | 22,410 |
| MINNESOTA | 14,636 |
| MISSISSIPPI | 4,383 |
| MISSOURI | 0 |
| NEBRASKA | 2,727 |
| NEVADA | 431 |
| NEW HAMPSHIRE | 1,008 |
| NEW JERSEY | 15,442 |
| NEW MEXICO | 2,865 |
| NEW YORK | 21,195 |
| NORTH CAROLINA | 20,205 |
| NORTH DAKOTA | 2,163 |
| OHIO | 41,041 |
| OKLAHOMA | 6,729 |
| OREGON | 8,587 |
| PENNSYLVANIA | 22,241 |
| RHODE ISLAND | 1,128 |
| SOUTH CAROLINA | 7,540 |
| SOUTH DAKOTA | 1,794 |
| TENNESSEE | 8,716 |
| TEXAS | 87,784 |

TABLE E-9.-- NUMBER OF ENROLLMENTS IN COOPERATIVE EDUCATION PROGRAMS BY STATE: UNITED STATES, OUTLYING AREAS 1978-79.

| STATE | COOPERATIVE VOCATIONAL EDUCATION ENROLLMENT |
|---|---|
| UTAH | 7,374 |
| VERMONT | 1,083 |
| VIRGINIA | 18,079 |
| WASHINGTON | 10,304 |
| WEST VIRGINIA | 3,369 |
| WISCONSIN | 3,270 |
| WYOMING | 0 |
| TOTAL U.S. | 528,820 |
| AMERICAN SAMOA | 27 |
| NORTHERN MARIANAS | 61 |
| GUAM | 91 |
| PUERTO RICO | 7,802 |
| TRUST TERRITORY | 160 |
| OUTLYING AREAS | 8,141 |
| U.S. AND OUTLYING AREAS | 536,961 |

TABLE F-10.-- NUMBER OF ENROLLMENTS IN OCCUPATIONALLY SPECIFIC PROGRAMS BY LEVEL BY INSTRUCTIONAL PROGRAM
UNITED STATES, OUTLYING AREAS 1978-79.

| PROGRAM | ENROLLMENT BY PROGRAM LEVEL<br>TOTAL | GRADES 11 & 12 | POST-SECONDARY | ADULT (LONG-TERM) | ADULT (SHORT-TERM) |
|---|---|---|---|---|---|
| AGRICULTURAL PRODUCTION | 170,687 | 146,045 | 14,408 | 10,234 | 69,878 |
| AGRICULTURAL SUPPLIES/SERVICES | 19,604 | 14,016 | 4,342 | 1,246 | 3,264 |
| AGRICULTURAL MECHANICS | 70,671 | 65,975 | 3,061 | 1,635 | 11,117 |
| AGRICULTURAL PRODUCTS | 5,317 | 3,913 | 1,282 | 122 | 3,381 |
| HORTICULTURE | 74,438 | 52,778 | 14,902 | 6,758 | 12,611 |
| RENEWABLE NATURAL RESOURCES | 15,997 | 11,397 | 4,088 | 512 | 1,336 |
| FORESTRY | 12,501 | 9,220 | 2,933 | 348 | 620 |
| OTHER AGRICULTURE | 20,224 | 17,245 | 2,418 | 561 | 2,030 |
| ADVERTISING SERVICES | 9,344 | 4,511 | 4,410 | 423 | 4,691 |
| APPAREL & ACCESSORIES | 25,604 | 16,372 | 8,437 | 795 | 2,671 |
| AUTOMOTIVE | 6,591 | 5,568 | 526 | 497 | 567 |
| FINANCE & CREDIT | 25,398 | 3,048 | 20,386 | 1,964 | 15,895 |
| FLORISTRY | 2,895 | 1,571 | 616 | 708 | 3,873 |
| FOOD DISTRIBUTION | 25,322 | 20,574 | 2,119 | 2,629 | 8,363 |
| FOOD SERVICES | 29,257 | 25,169 | 2,862 | 1,226 | 16,554 |
| GENERAL MERCHANDISE | 195,507 | 153,460 | 33,848 | 8,199 | 37,533 |
| HARDWARE, BUILDING MATERIALS, ETC. | 3,434 | 3,286 | 83 | 65 | 1,470 |
| HOME FURNISHINGS | 2,304 | 1,387 | 790 | 127 | 586 |
| HOTEL & LODGING | 11,752 | 1,985 | 8,922 | 845 | 6,199 |
| INDUSTRIAL MARKETING | 17,602 | 1,909 | 14,600 | 1,093 | 6,654 |
| INSURANCE | 6,472 | 886 | 3,031 | 2,555 | 10,838 |
| PERSONAL SERVICES | 5,435 | 4,878 | 519 | 38 | 10,132 |
| REAL ESTATE | 99,173 | 1,084 | 72,461 | 25,628 | 60,780 |
| RECREATION & TOURISM | 14,154 | 2,865 | 8,580 | 2,709 | 3,303 |
| TRANSPORTATION | 10,606 | 2,805 | 6,438 | 1,363 | 5,786 |
| OTHER RETAIL TRADES | 15,273 | 11,124 | 3,607 | 542 | 2,993 |
| OTHER DISTRIBUTIVE EDUCATION | 47,784 | 26,685 | 16,360 | 4,739 | 13,295 |
| DENTAL ASSISTING | 16,025 | 5,809 | 4,823 | 5,393 | 2,259 |
| DENTAL HYGIENE(ASSOCIATE DEGREE) | 6,496 | 6 | 6,445 | 45 | 66 |
| DENTAL LABORATORY TECHNOLOGY | 3,252 | 572 | 2,144 | 536 | 371 |
| MEDICAL LABORATORY ASSISTING | 13,143 | 2,505 | 9,739 | 899 | 1,225 |
| OTHER MEDICAL LABORATORY TECHNOLOGY | 4,026 | 104 | 3,633 | 289 | 699 |
| NURSING(ASSOCIATE DEGREE) | 90,733 | 122 | 88,180 | 2,431 | 10,082 |
| PRACTICAL(VOCATIONAL)NURSING | 71,366 | 6,453 | 18,643 | 46,270 | 9,505 |
| NURSING ASSISTANCE(AIDE) | 44,319 | 26,859 | 5,650 | 11,810 | 66,540 |
| OTHER NURSING | 12,101 | 2,544 | 4,712 | 4,845 | 7,481 |
| REHABILITATION | 5,775 | 354 | 5,096 | 325 | 753 |
| RADIOLOGIC TECHNOLOGY(X-RAY) | 10,789 | 53 | 9,984 | 752 | 348 |
| MENTAL HEALTH TECHNOLOGY | 10,526 | 202 | 9,333 | 991 | 862 |
| INHALATION THERAPY | 10,121 | 220 | 7,787 | 2,114 | 907 |
| MEDICAL ASSISTANT | 18,214 | 8,632 | 5,742 | 3,840 | 9,812 |
| COMMUNITY HEALTH AIDE | 7,716 | 6,177 | 1,182 | 357 | 2,343 |
| MEDICAL EMERGENCY TECHNICIAN | 14,878 | 394 | 7,509 | 6,975 | 60,285 |
| OTHER HEALTH OCCUPATIONS EDUCATION | 47,795 | 24,953 | 15,077 | 7,765 | 32,461 |

TABLE F-10.-- NUMBER OF ENROLLMENTS IN OCCUPATIONALLY SPECIFIC PROGRAMS BY LEVEL BY INSTRUCTIONAL PROGRAM:
UNITED STATES,OUTLYING AREAS 1978-79.

| PROGRAMS | TOTAL | ------------ ENROLLMENT BY PROGRAM LEVEL ------------<br>GRADES 11 & 12 | POST-SECONDARY | ADULT (LONG-TERM) | ADULT (SHORT-TERM) |
|---|---|---|---|---|---|
| CARE & GUIDANCE OF CHILDREN | 101,553 | 50,243 | 37,729 | 13,581 | 30,611 |
| CLOTHING MGT., PRODUCTION, & SERVICES | 31,463 | 24,429 | 4,232 | 2,802 | 15,380 |
| FOOD MGT., PRODUCTION, & SERVICES | 80,600 | 67,535 | 8,328 | 4,737 | 20,327 |
| HOME FURN.,EQUIPMENT, & SERVICES | 9,268 | 3,276 | 4,000 | 1,992 | 8,784 |
| INSTITUTIONAL & HOME MGT. & SUP. | 5,799 | 4,968 | 344 | 487 | 2,077 |
| OTHER OCCUP. PREP. FOR HOMEMAKING | 16,073 | 11,659 | 3,344 | 1,070 | 2,443 |
| ACCOUNTING & COMPUTING OCCUPATIONS | 402,004 | 229,944 | 141,563 | 30,497 | 70,807 |
| COMPUTER & CONSOLE OPERATORS | 25,703 | 7,209 | 14,798 | 3,696 | 7,320 |
| PROGRAMMERS | 62,359 | 11,181 | 46,718 | 4,460 | 5,092 |
| OTHER BUSINESS DATA PROCESSING | 79,111 | 33,507 | 32,371 | 13,233 | 19,300 |
| FILING, OFFICE MACHINES, & GEN. OFF. | 419,972 | 337,578 | 41,625 | 40,769 | 55,639 |
| INFORMATION, COMMUNICATION OCCUP. | 21,997 | 6,891 | 10,101 | 5,005 | 7,321 |
| MATERIALS SUPPORT OCCUPATIONS | 2,846 | 1,714 | 880 | 252 | 245 |
| PERSONNEL, TRAINING, & RELATED | 18,639 | 2,894 | 12,226 | 3,519 | 22,001 |
| STENOGRAPHIC, SECRETARIAL, & RELATED | 428,656 | 240,656 | 138,515 | 49,485 | 69,584 |
| SUPERVISORY & ADMINISTRATIVE MGT. | 155,540 | 10,487 | 134,926 | 10,127 | 28,054 |
| TYPING & RELATED OCCUPATIONS | 197,308 | 166,836 | 11,302 | 19,170 | 82,216 |
| OTHER OFFICE OCCUPATIONS | 52,950 | 37,568 | 12,124 | 3,258 | 11,630 |
| ARCHITECTURAL TECHNOLOGY | 25,100 | 1,664 | 21,507 | 1,929 | 2,282 |
| AUTOMOTIVE TECHNOLOGY | 8,908 | 559 | 7,737 | 612 | 570 |
| CIVIL TECHNOLOGY | 15,551 | 454 | 13,476 | 1,621 | 9,563 |
| ELECTRICAL TECHNOLOGY | 15,335 | 1,679 | 12,827 | 829 | 7,200 |
| ELECTRONIC TECHNOLOGY | 78,795 | 5,810 | 61,634 | 11,351 | 15,142 |
| ENVIRONMENTAL-CONTROL TECHNOLOGY | 6,036 | 218 | 5,072 | 746 | 978 |
| INDUSTRIAL TECHNOLOGY | 11,649 | 119 | 11,164 | 366 | 7,112 |
| MECHANICAL TECHNOLOGY | 23,590 | 729 | 19,392 | 3,469 | 2,914 |
| SCIENTIFIC DATA PROCESSING | 14,967 | 2,732 | 9,685 | 2,550 | 1,794 |
| COMMERCIAL PILOT TRAINING | 8,328 | 29 | 7,650 | 649 | 1,358 |
| FIRE & FIRE SAFETY TECHNOLOGY | 11,085 | 14 | 10,145 | 926 | 6,058 |
| POLICE SCIENCE TECHNOLOGY | 57,894 | 225 | 52,951 | 4,718 | 3,803 |
| OTHER TECHNICAL EDUCATION | 63,627 | 4,096 | 50,946 | 8,585 | 12,803 |
| WATER & WASTE WATER TECHNOLOGY | 2,738 | 3 | 2,299 | 436 | 2,667 |
| AIR CONDITIONING | 48,917 | 16,030 | 13,243 | 19,644 | 19,160 |
| APPLIANCE REPAIR | 12,736 | 7,975 | 1,380 | 3,381 | 1,633 |
| BODY & FENDER REPAIR | 65,761 | 41,660 | 9,723 | 14,378 | 14,653 |
| AUTO MECHANICS | 232,059 | 161,378 | 32,651 | 38,030 | 49,752 |
| AUTOMOTIVE SPECIALIZATION | 24,626 | 17,478 | 2,374 | 4,774 | 5,025 |
| AVIATION OCCUPATIONS | 22,360 | 6,511 | 9,552 | 6,297 | 6,441 |
| COMMERCIAL ART OCCUPATIONS | 44,253 | 16,519 | 24,119 | 3,615 | 4,905 |
| COMMERCIAL PHOTOGRAPHY OCCUP. | 22,031 | 6,523 | 12,071 | 3,437 | 7,314 |
| CARPENTRY | 114,062 | 70,438 | 13,240 | 30,384 | 25,179 |
| ELECTRICITY | 36,815 | 17,788 | 2,938 | 16,089 | 20,031 |
| MASONRY | 29,201 | 19,559 | 1,200 | 8,442 | 10,067 |
| PLUMBING & PIPEFITTING | 22,843 | 7,084 | 1,383 | 14,376 | 14,447 |

TABLE E-19.-- NUMBER OF ENROLLMENTS IN OCCUPATIONALLY SPECIFIC PROGRAMS BY LEVEL BY INSTRUCTIONAL PROGRAM: UNITED STATES, OUTLYING AREAS 1978-79.

| PROGRAM | TOTAL | GRADES 11 & 12 | POST-SECONDARY | ADULT (LONG-TERM) | ADULT (SHORT-TERM) |
|---|---|---|---|---|---|
| | ------------- | ENROLLMENT BY PROGRAM LEVEL | ------------- | | |
| OTHER CONSTRUCTION & MAINTENANCE | 84,352 | 50,322 | 10,891 | 23,139 | 30,746 |
| CUSTODIAL SERVICES | 9,495 | 5,791 | 1,377 | 2,327 | 8,265 |
| DIESEL MECHANIC | 22,255 | 6,470 | 7,785 | 8,000 | 4,037 |
| DRAFTING OCCUPATIONS | 96,773 | 58,352 | 22,947 | 15,474 | 18,203 |
| ELECTRICAL OCCUPATIONS | 39,036 | 18,268 | 4,085 | 16,683 | 37,541 |
| ELECTRONICS OCCUPATIONS | 83,775 | 46,916 | 16,938 | 19,921 | 24,192 |
| FOREMANSHIP, SUPER., & MGT. DEVEL. | 18,740 | 1,409 | 12,972 | 4,359 | 42,711 |
| GRAPHIC ARTS OCCUPATIONS | 69,162 | 51,515 | 10,083 | 7,564 | 8,580 |
| INSTRUMENT MAINTENANCE & REPAIR | 2,510 | 630 | 764 | 1,116 | 1,407 |
| MARITIME OCCUPATIONS | 4,522 | 1,287 | 1,245 | 1,990 | 3,274 |
| MACHINE SHOP | 72,802 | 40,284 | 12,683 | 19,835 | 29,755 |
| MACHINE TOOL OCCUPATION | 6,891 | 2,598 | 2,263 | 2,030 | 4,492 |
| SHEET METAL | 16,906 | 8,337 | 1,297 | 7,272 | 5,858 |
| WELDING & CUTTING | 109,299 | 45,038 | 26,860 | 37,401 | 63,639 |
| TOOL & DIE MAKING | 4,718 | 747 | 859 | 3,112 | 4,918 |
| OTHER METALWORKING OCCUPATIONS | 27,601 | 22,102 | 2,037 | 3,462 | 6,607 |
| METALLURGY OCCUPATIONS | 1,209 | 891 | 265 | 53 | 828 |
| COSMETOLOGY | 82,684 | 54,191 | 9,646 | 18,847 | 4,916 |
| OTHER PERSONAL SERVICES | 5,416 | 3,088 | 1,314 | 1,014 | 2,996 |
| PLASTICS OCCUPATIONS | 2,904 | 2,250 | 426 | 228 | 2,329 |
| FIREMAN TRAINING | 12,717 | 1,015 | 9,232 | 2,470 | 164,014 |
| LAW ENFORCEMENT TRAINING | 52,862 | 3,927 | 44,681 | 4,254 | 30,508 |
| OTHER PUBLIC SERVICE OCCUPATIONS | 19,944 | 3,636 | 13,241 | 3,067 | 45,565 |
| QUANTITY FOOD OCCUPATIONS | 34,874 | 22,824 | 5,874 | 6,176 | 7,635 |
| REFRIGERATION | 2,748 | 986 | 869 | 893 | 2,674 |
| SMALL ENGINE REPAIR | 22,995 | 14,694 | 1,973 | 6,328 | 10,884 |
| STATIONARY ENERGY SOURCES OCCUP. | 1,493 | 558 | 131 | 804 | 5,076 |
| TEXTILE PRODUCTION & FABRICATION | 21,419 | 11,917 | 3,978 | 5,524 | 12,962 |
| UPHOLSTERING | 7,145 | 3,007 | 887 | 3,251 | 6,850 |
| WOODWORKING OCCUPATIONS | 32,447 | 26,730 | 1,946 | 3,771 | 16,382 |
| OTHER TRADE & INDUSTRIAL OCCUPATIONS | 90,931 | 53,402 | 13,157 | 24,372 | 50,740 |
| OTHER PROGRAMS, GREATER THAN 1% OF TOTAL | 128,324 | 96,322 | 21,442 | 10,560 | 38,990 |
| OTHER PROGRAMS, LESS THAN 1% OF TOTAL | 31,619 | 28,319 | 2,838 | 462 | 7,948 |
| TOTAL | 5,682,297 | 3,039,407 | 1,794,179 | 848,711 | 1,943,640 |

TABLE E-11.-- NUMBER OF ENROLLMENTS IN OCCUPATIONALLY SPECIFIC PROGRAMS BY RACIAL/ETHNIC DESIGNATION AND SEX BY PROGRAM
UNITED STATES, OUTLYING AREAS 1978-79.

| PROGRAM | TOTAL | AMERICAN INDIAN/ ALASKAN NATIVE MALE | AMERICAN INDIAN/ ALASKAN NATIVE FEMALE | ASIAN AMERICAN/ PACIFIC ISLANDER MALE | ASIAN AMERICAN/ PACIFIC ISLANDER FEMALE | BLACK, NOT HISPANIC MALE | BLACK, NOT HISPANIC FEMALE | HISPANIC MALE | HISPANIC FEMALE | WHITE, NOT HISPANIC MALE | WHITE, NOT HISPANIC FEMALE |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AGRICULTURAL PRODUCTION | 170,687 | 1,327 | 318 | 1,193 | 319 | 7,600 | 1,369 | 5,429 | 947 | 126,746 | 25,439 |
| AGRICULTURAL SUPPLIES/SERVICES | 19,604 | 117 | 37 | 82 | 41 | 656 | 87 | 568 | 117 | 13,921 | 3,978 |
| AGRICULTURAL MECHANICS | 70,671 | 635 | 136 | 224 | 90 | 6,558 | 497 | 1,615 | 249 | 54,578 | 6,039 |
| AGRICULTURAL PRODUCTS | 5,317 | 37 | 7 | 48 | 11 | 437 | 95 | 129 | 39 | 3,492 | 1,022 |
| HORTICULTURE | 74,438 | 560 | 246 | 889 | 403 | 4,398 | 1,925 | 2,041 | 954 | 37,023 | 25,994 |
| RENEWABLE NATURAL RESOURCES | 15,997 | 187 | 95 | 77 | 41 | 566 | 146 | 391 | 136 | 10,944 | 3,414 |
| FORESTRY | 12,501 | 147 | 51 | 62 | 25 | 855 | 126 | 231 | 83 | 8,470 | 1,451 |
| OTHER AGRICULTURE | 20,224 | 201 | 75 | 104 | 31 | 702 | 187 | 481 | 126 | 13,891 | 4,426 |
| ADVERTISING SERVICES | 9,344 | 26 | 26 | 76 | 73 | 667 | 572 | 188 | 189 | 3,573 | 3,954 |
| APPAREL & ACCESSORIES | 25,604 | 25 | 76 | 70 | 167 | 1,006 | 3,153 | 277 | 731 | 4,337 | 15,762 |
| AUTOMOTIVE | 6,591 | 13 | 15 | 17 | 6 | 537 | 253 | 135 | 36 | 4,277 | 1,302 |
| FINANCE & CREDIT | 25,398 | 79 | 143 | 207 | 269 | 666 | 1,151 | 502 | 857 | 6,988 | 14,536 |
| FLORISTRY | 2,895 | 8 | 11 | 24 | 20 | 123 | 164 | 47 | 84 | 843 | 1,571 |
| FOOD DISTRIBUTION | 25,322 | 67 | 108 | 133 | 131 | 1,714 | 1,501 | 745 | 633 | 11,275 | 8,975 |
| FOOD SERVICES | 29,257 | 58 | 76 | 314 | 162 | 2,023 | 2,897 | 348 | 482 | 8,953 | 13,944 |
| GENERAL MERCHANDISE | 195,507 | 539 | 646 | 2,240 | 2,098 | 11,244 | 14,823 | 4,944 | 6,518 | 69,162 | 83,293 |
| HARDWARE, BUILDING MATERIALS, ETC. | 3,434 | 5 | 4 | 6 | 3 | 189 | 124 | 83 | 35 | 2,173 | 812 |
| HOME FURNISHINGS | 2,304 | 4 | 5 | 6 | 11 | 105 | 115 | 19 | 37 | 833 | 1,169 |
| HOTEL & LODGING | 11,752 | 34 | 29 | 277 | 298 | 886 | 667 | 321 | 247 | 5,277 | 3,716 |
| INDUSTRIAL MARKETING | 17,602 | 41 | 36 | 135 | 110 | 1,329 | 1,186 | 1,039 | 650 | 7,725 | 5,351 |
| INSURANCE | 6,472 | 24 | 25 | 108 | 85 | 471 | 565 | 195 | 237 | 2,370 | 2,392 |
| PERSONAL SERVICES | 5,435 | 9 | 26 | 10 | 15 | 325 | 534 | 90 | 111 | 1,698 | 2,617 |
| REAL ESTATE | 99,173 | 477 | 467 | 1,827 | 1,461 | 3,967 | 3,815 | 3,575 | 4,208 | 39,602 | 39,774 |
| RECREATION & TOURISM | 14,154 | 85 | 78 | 243 | 211 | 780 | 714 | 485 | 572 | 5,124 | 5,862 |
| TRANSPORTATION | 10,606 | 44 | 35 | 136 | 109 | 780 | 510 | 289 | 334 | 5,183 | 3,186 |
| OTHER RETAIL TRADES | 15,273 | 36 | 36 | 57 | 44 | 863 | 1,155 | 191 | 227 | 5,351 | 7,313 |
| OTHER DISTRIBUTIVE EDUCATION | 47,784 | 97 | 137 | 277 | 294 | 2,705 | 3,495 | 1,357 | 1,772 | 18,545 | 19,105 |
| DENTAL ASSISTING | 16,025 | 25 | 97 | 47 | 238 | 219 | 1,621 | 137 | 800 | 1,159 | 11,682 |
| DENTAL HYGIENE(ASSOCIATE DEGREE) | 6,496 | 3 | 27 | 7 | 60 | 29 | 425 | 22 | 237 | 212 | 5,474 |
| DENTAL LABORATORY TECHNOLOGY | 3,252 | 8 | 9 | 20 | 32 | 234 | 281 | 110 | 80 | 964 | 1,514 |
| MEDICAL LABORATORY ASSISTING | 13,143 | 24 | 64 | 50 | 139 | 649 | 2,079 | 242 | 544 | 1,702 | 7,650 |
| OTHER MEDICAL LABORATORY TECHNOLOGY | 4,026 | 18 | 31 | 28 | 44 | 93 | 312 | 88 | 206 | 745 | 2,461 |
| NURSING(ASSOCIATE DEGREE) | 90,733 | 102 | 568 | 256 | 1,329 | 1,082 | 9,867 | 666 | 3,745 | 7,337 | 65,781 |
| PRACTICAL(VOCATIONAL)NURSING | 71,366 | 75 | 480 | 118 | 711 | 799 | 9,085 | 411 | 2,805 | 4,107 | 52,775 |
| NURSING ASSISTANCE(AIDE) | 44,319 | 85 | 521 | 151 | 752 | 591 | 6,155 | 468 | 2,415 | 3,189 | 29,992 |
| OTHER NURSING | 12,101 | 19 | 76 | 51 | 183 | 263 | 1,609 | 223 | 728 | 1,241 | 7,708 |
| REHABILITATION | 5,775 | 7 | 27 | 15 | 58 | 178 | 641 | 63 | 237 | 570 | 3,979 |
| RADIOLOGIC TECHNOLOGY(X-RAY) | 10,789 | 33 | 59 | 138 | 125 | 491 | 917 | 301 | 516 | 2,340 | 5,869 |
| MENTAL HEALTH TECHNOLOGY | 10,526 | 49 | 112 | 34 | 120 | 515 | 1,638 | 146 | 425 | 1,467 | 6,020 |
| INHALATION THERAPY | 10,121 | 70 | 51 | 56 | 156 | 443 | 985 | 226 | 348 | 2,228 | 5,558 |
| MEDICAL ASSISTANT | 18,214 | 29 | 175 | 51 | 247 | 367 | 2,723 | 145 | 822 | 1,440 | 12,215 |
| COMMUNITY HEALTH AIDE | 7,716 | 3 | 22 | 6 | 42 | 128 | 958 | 44 | 437 | 458 | 5,618 |
| MEDICAL EMERGENCY TECHNICIAN | 14,878 | 103 | 195 | 85 | 247 | 546 | 798 | 388 | 613 | 5,795 | 6,108 |

## TABLE E-11.-- NUMBER OF ENROLLMENTS IN OCCUPATIONALLY SPECIFIC PROGRAMS BY RACIAL/ETHNIC DESIGNATION AND SEX BY PROGRAM: UNITED STATES, OUTLYING AREAS 1978-79.

| PROGRAM | TOTAL | AMERICAN INDIAN/ ALASKAN NATIVE |  | ASIAN AMERICAN/ PACIFIC ISLANDER |  | BLACK, NOT HISPANIC |  | HISPANIC |  | WHITE, NOT HISPANIC |  |
|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  | MALE | FEMALE | MALE | FEMALE | MALE | FEMALE | MALE | FEMALE | MALE | FEMALE |
| OTHER HEALTH OCCUPATIONS EDUCATION | 47,795 | 74 | 268 | 245 | 449 | 1,768 | 7,028 | 775 | 1,833 | 6,339 | 29,016 |
| CARE & GUIDANCE OF CHILDREN | 101,553 | 124 | 855 | 367 | 1,336 | 2,092 | 18,981 | 1,063 | 7,283 | 6,721 | 62,791 |
| CLOTHING MGT., PROD., & SERVICES | 31,463 | 32 | 139 | 70 | 379 | 2,943 | 10,064 | 213 | 1,418 | 1,550 | 14,655 |
| FOOD MGT., PRODUCTION, & SERVICES | 80,600 | 144 | 380 | 624 | 892 | 6,364 | 14,994 | 1,195 | 2,825 | 17,564 | 35,613 |
| HOME FURN.,EQUIPMENT, & SERVICES | 9,268 | 29 | 94 | 40 | 167 | 257 | 944 | 151 | 902 | 900 | 5,788 |
| INSTITUTIONAL & HOME MGT. & SUP. | 5,799 | 4 | 34 | 23 | 48 | 243 | 906 | 48 | 240 | 716 | 3,537 |
| OTHER OCCUP. PREP. FOR HOMEMAKING | 16,073 | 38 | 140 | 28 | 101 | 1,045 | 2,756 | 428 | 1,252 | 2,367 | 7,918 |
| ACCOUNTING & COMPUTING OCCUPATIONS | 402,004 | 1,028 | 2,108 | 4,768 | 8,475 | 21,351 | 40,671 | 9,962 | 23,858 | 96,786 | 192,447 |
| COMPUTER & CONSOLE OPERATORS | 25,703 | 64 | 145 | 363 | 547 | 1,502 | 3,252 | 502 | 1,358 | 6,452 | 11,478 |
| PROGRAMMERS | 62,359 | 178 | 273 | 985 | 994 | 4,703 | 6,423 | 2,384 | 2,489 | 20,129 | 23,301 |
| OTHER BUSINESS DATA PROCESSING | 79,111 | 172 | 397 | 1,096 | 1,723 | 4,848 | 9,132 | 2,010 | 4,286 | 20,996 | 34,451 |
| FILING, OFF. MACHINES, & GEN. OFF. | 419,972 | 817 | 3,221 | 2,997 | 6,248 | 15,013 | 61,503 | 6,369 | 28,960 | 57,283 | 235,561 |
| INFORMATION, COMMUNICATION OCCUP. | 21,997 | 61 | 173 | 332 | 571 | 950 | 2,083 | 701 | 1,683 | 4,814 | 10,629 |
| MATERIALS SUPPORT OCCUPATIONS | 2,846 | 4 | 6 | 16 | 17 | 141 | 147 | 31 | 77 | 1,197 | 1,210 |
| PERSONNEL, TRAINING, & RELATED | 18,639 | 100 | 183 | 277 | 492 | 895 | 1,672 | 510 | 1,313 | 4,800 | 8,397 |
| STENOGRAPHIC, SECRETARIAL,& RELATED | 428,656 | 446 | 2,474 | 2,148 | 8,166 | 6,203 | 54,639 | 3,958 | 28,076 | 33,923 | 288,623 |
| SUPERVISORY & ADMINISTRATIVE MGT. | 155,540 | 463 | 648 | 1,299 | 1,678 | 12,103 | 12,609 | 3,806 | 5,554 | 58,930 | 58,450 |
| TYPING & RELATED OCCUPATIONS | 197,308 | 577 | 1,953 | 1,663 | 4,078 | 6,939 | 25,916 | 3,154 | 12,282 | 30,006 | 110,740 |
| OTHER OFFICE OCCUPATIONS | 52,950 | 87 | 188 | 252 | 503 | 1,346 | 5,494 | 729 | 5,060 | 6,805 | 32,486 |
| ARCHITECTURAL TECHNOLOGY | 25,100 | 159 | 45 | 878 | 221 | 2,097 | 618 | 1,761 | 503 | 15,169 | 3,649 |
| AUTOMOTIVE TECHNOLOGY | 8,908 | 143 | 8 | 145 | 20 | 720 | 68 | 257 | 43 | 6,911 | 593 |
| CIVIL TECHNOLOGY | 15,551 | 118 | 24 | 358 | 45 | 1,233 | 215 | 814 | 106 | 11,189 | 1,449 |
| ELECTRICAL TECHNOLOGY | 15,335 | 96 | 10 | 233 | 65 | 1,351 | 123 | 729 | 60 | 11,973 | 695 |
| ELECTRONIC TECHNOLOGY | 78,795 | 593 | 116 | 2,282 | 740 | 6,605 | 1,241 | 4,534 | 612 | 55,715 | 6,357 |
| ENVIRONMENTAL-CONTROL TECHNOLOGY | 6,036 | 141 | 8 | 69 | 9 | 361 | 48 | 288 | 53 | 4,651 | 408 |
| INDUSTRIAL TECHNOLOGY | 11,649 | 66 | 17 | 138 | 32 | 1,082 | 307 | 291 | 111 | 8,074 | 1,531 |
| MECHANICAL TECHNOLOGY | 23,590 | 175 | 27 | 391 | 55 | 1,999 | 331 | 835 | 129 | 17,526 | 2,122 |
| SCIENTIFIC DATA PROCESSING | 14,967 | 81 | 33 | 416 | 129 | 1,133 | 725 | 775 | 223 | 7,710 | 3,742 |
| COMMERCIAL PILOT TRAINING | 8,328 | 65 | 19 | 268 | 77 | 447 | 196 | 493 | 132 | 5,336 | 1,295 |
| FIRE & FIRE SAFETY TECHNOLOGY | 11,085 | 97 | 21 | 177 | 38 | 752 | 148 | 378 | 78 | 8,617 | 779 |
| POLICE SCIENCE TECHNOLOGY | 57,894 | 500 | 183 | 1,539 | 369 | 5,462 | 2,412 | 2,892 | 807 | 34,282 | 9,448 |
| OTHER TECHNICAL EDUCATION | 63,627 | 274 | 97 | 872 | 275 | 4,659 | 3,297 | 2,473 | 1,024 | 35,410 | 15,246 |
| WATER & WASTE WATER TECHNOLOGY | 2,738 | 102 | 13 | 65 | 17 | 165 | 62 | 150 | 31 | 1,724 | 404 |
| AIR CONDITIONING | 48,917 | 256 | 24 | 516 | 50 | 6,460 | 436 | 3,147 | 163 | 36,080 | 1,785 |
| APPLIANCE REPAIR | 12,736 | 98 | 14 | 127 | 25 | 2,427 | 257 | 852 | 89 | 7,983 | 864 |
| BODY & FENDER REPAIR | 65,761 | 527 | 60 | 886 | 126 | 8,826 | 610 | 4,773 | 408 | 46,200 | 3,345 |
| AUTO MECHANICS | 232,059 | 2,391 | 398 | 5,330 | 547 | 26,898 | 2,540 | 14,463 | 1,779 | 162,913 | 14,840 |
| AUTOMOTIVE SPECIALIZATION | 24,626 | 167 | 39 | 489 | 116 | 2,393 | 427 | 1,948 | 352 | 16,205 | 2,420 |
| AVIATION OCCUPATIONS | 22,360 | 192 | 45 | 353 | 119 | 1,889 | 347 | 1,749 | 358 | 14,966 | 2,342 |
| COMMERCIAL ART OCCUPATIONS | 44,253 | 357 | 154 | 512 | 280 | 3,150 | 2,269 | 2,002 | 1,202 | 16,934 | 17,393 |
| COMMERCIAL PHOTOGRAPHY OCCUP. | 22,031 | 179 | 52 | 468 | 152 | 1,457 | 709 | 1,782 | 576 | 11,149 | 5,507 |
| CARPENTRY | 114,062 | 1,309 | 127 | 1,692 | 214 | 11,637 | 1,248 | 5,067 | 631 | 85,034 | 7,096 |
| ELECTRICITY | 36,815 | 274 | 27 | 503 | 46 | 4,436 | 481 | 1,990 | 165 | 26,897 | 1,996 |

### TABLE E-11.-- NUMBER OF ENROLLMENTS IN OCCUPATIONALLY SPECIFIC PROGRAMS BY RACIAL/ETHNIC DESIGNATION AND SEX BY PROGRAM: UNITED STATES, OUTLYING AREAS 1978-79.

| PROGRAM | TOTAL | AMERICAN INDIAN/ ALASKAN NATIVE |  | ASIAN AMERICAN/ PACIFIC ISLANDER |  | BLACK, NOT HISPANIC |  | HISPANIC |  | WHITE, NOT HISPANIC |  |
|---|---|---|---|---|---|---|---|---|---|---|---|
|  |  | MALE | FEMALE | MALE | FEMALE | MALE | FEMALE | MALE | FEMALE | MALE | FEMALE |
| MASONRY | 29,201 | 217 | 13 | 205 | 20 | 8,699 | 479 | 779 | 63 | 17,547 | 1,179 |
| PLUMBING & PIPEFITTING | 22,843 | 176 | 15 | 300 | 15 | 2,486 | 132 | 1,833 | 45 | 16,955 | 886 |
| OTHER CONSTRUCTION & MAINTENANCE | 84,352 | 641 | 87 | 1,376 | 198 | 10,892 | 1,073 | 5,902 | 581 | 58,505 | 5,097 |
| CUSTODIAL SERVICES | 9,495 | 105 | 23 | 117 | 16 | 1,613 | 273 | 343 | 61 | 5,993 | 951 |
| DIESEL MECHANIC | 22,255 | 268 | 19 | 213 | 26 | 2,055 | 177 | 1,104 | 75 | 17,318 | 1,000 |
| DRAFTING OCCUPATIONS | 96,773 | 689 | 156 | 1,590 | 328 | 10,095 | 2,052 | 4,646 | 868 | 62,734 | 13,615 |
| ELECTRICAL OCCUPATIONS | 39,036 | 216 | 26 | 329 | 33 | 4,533 | 303 | 1,882 | 164 | 30,002 | 1,548 |
| ELECTRONICS OCCUPATIONS | 83,775 | 586 | 103 | 1,240 | 255 | 9,512 | 1,190 | 5,739 | 800 | 57,655 | 6,695 |
| FOREMANSHIP, SUPER., & MGT. DEVEL. | 18,740 | 136 | 41 | 451 | 138 | 1,340 | 508 | 1,506 | 373 | 10,449 | 3,798 |
| GRAPHIC ARTS OCCUPATIONS | 69,162 | 529 | 196 | 1,147 | 424 | 7,015 | 2,536 | 3,323 | 1,159 | 37,496 | 15,337 |
| INSTRUMENT MAINTENANCE & REPAIR | 2,510 | 4 | 1 | 15 | 7 | 415 | 85 | 85 | 56 | 1,510 | 332 |
| MARITIME OCCUPATIONS | 4,522 | 37 | 9 | 75 | 19 | 333 | 67 | 268 | 60 | 3,074 | 580 |
| MACHINE SHOP | 72,802 | 444 | 68 | 1,065 | 151 | 6,698 | 848 | 3,301 | 479 | 55,077 | 4,671 |
| MACHINE TOOL OCCUPATION | 6,891 | 50 | 11 | 87 | 15 | 1,029 | 196 | 223 | 106 | 4,626 | 548 |
| SHEET METAL | 16,906 | 141 | 26 | 333 | 78 | 1,695 | 211 | 976 | 191 | 11,830 | 1,425 |
| WELDING & CUTTING | 109,299 | 1,144 | 135 | 1,470 | 217 | 13,693 | 1,521 | 6,272 | 658 | 78,489 | 5,700 |
| TOOL & DIE MAKING | 4,718 | 17 | 1 | 32 | 2 | 306 | 61 | 196 | 7 | 3,812 | 284 |
| OTHER METALWORKING OCCUPATIONS | 27,601 | 228 | 40 | 493 | 73 | 2,372 | 297 | 1,243 | 204 | 20,361 | 2,290 |
| METALLURGY OCCUPATIONS | 1,209 | 4 | 2 | 9 | 2 | 42 | 12 | 35 | 9 | 911 | 183 |
| COSMETOLOGY | 82,684 | 342 | 353 | 647 | 586 | 2,759 | 9,574 | 2,321 | 3,401 | 13,726 | 48,975 |
| OTHER PERSONAL SERVICES | 5,416 | 20 | 12 | 40 | 22 | 371 | 558 | 175 | 159 | 1,778 | 2,285 |
| PLASTICS OCCUPATIONS | 2,904 | 24 | 5 | 73 | 20 | 296 | 70 | 250 | 59 | 1,696 | 411 |
| FIREMAN TRAINING | 12,717 | 115 | 24 | 487 | 76 | 1,022 | 217 | 1,276 | 245 | 7,846 | 1,409 |
| LAW ENFORCEMENT TRAINING | 52,862 | 333 | 94 | 1,066 | 275 | 3,739 | 1,660 | 4,685 | 1,437 | 30,049 | 9,524 |
| OTHER PUBLIC SERVICE OCCUPATIONS | 19,944 | 122 | 80 | 450 | 428 | 1,524 | 1,843 | 1,085 | 548 | 6,857 | 7,007 |
| QUANTITY FOOD OCCUPATIONS | 34,878 | 229 | 93 | 662 | 274 | 3,525 | 2,661 | 1,491 | 783 | 15,342 | 9,814 |
| REFRIGERATION | 2,748 | 25 | 3 | 220 | 5 | 353 | 32 | 118 | 18 | 1,820 | 154 |
| SMALL ENGINE REPAIR | 22,995 | 187 | 26 | 255 | 40 | 3,730 | 216 | 1,026 | 123 | 16,284 | 1,108 |
| STATIONARY ENERGY SOURCES OCCUP. | 1,493 | 14 | 3 | 25 | 6 | 82 | 27 | 82 | 19 | 1,046 | 189 |
| TEXTILE PRODUCTION & FABRICATION | 21,419 | 96 | 44 | 168 | 225 | 2,823 | 2,839 | 608 | 2,132 | 6,369 | 6,115 |
| UPHOLSTERING | 7,145 | 103 | 34 | 92 | 45 | 1,435 | 566 | 734 | 145 | 2,805 | 1,166 |
| WOODWORKING OCCUPATIONS | 32,447 | 305 | 67 | 595 | 153 | 3,938 | 612 | 2,858 | 484 | 20,347 | 3,088 |
| OTHER TRADE&INDUSTRIAL OCCUPATIONS | 90,931 | 627 | 148 | 963 | 321 | 7,913 | 3,531 | 4,094 | 1,429 | 55,365 | 16,540 |
| OTHER PROGS,GRTR THAN 1% OF TOTAL | 128,324 | 509 | 482 | 1,312 | 698 | 11,753 | 10,900 | 2,224 | 1,811 | 56,943 | 41,692 |
| OTHER PROGS,LESS THAN 1% OF TOTAL | 31,619 | 64 | 48 | 95 | 66 | 3,647 | 3,777 | 1,174 | 988 | 11,988 | 9,772 |
| TOTAL | 5,682,297 | 27,045 | 23,136 | 63,899 | 58,903 | 380,857 | 431,358 | 185,770 | 196,298 | 2,279,345 | 2,035,666 |

TABLE F-12.-- NUMBER OF ENROLLMENTS IN COOPERATIVE EDUCATION PROGRAMS BY PROGRAM: UNITED STATES, OUTLYING AREAS 1978-79.

| PROGRAM | COOPERATIVE VOCATIONAL EDUCATION ENROLLMENT |
|---|---:|
| AGRICULTURAL PRODUCTION | 8,187 |
| AGRICULTURAL SUPPLIES/SERVICES | 3,679 |
| AGRICULTURAL MECHANICS | 3,278 |
| AGRICULTURAL PRODUCTS | 1,054 |
| HORTICULTURE | 5,754 |
| RENEWABLE NATURAL RESOURCES | 269 |
| FORESTRY | 466 |
| OTHER AGRICULTURE | 5,912 |
| ADVERTISING SERVICES | 1,894 |
| APPAREL & ACCESSORIES | 9,844 |
| AUTOMOTIVE | 3,418 |
| FINANCE & CREDIT | 2,213 |
| FLORISTRY | 680 |
| FOOD DISTRIBUTION | 14,622 |
| FOOD SERVICES | 17,315 |
| GENERAL MERCHANDISE | 69,702 |
| HARDWARE, BUILDING MATERIALS, ETC. | 2,344 |
| HOME FURNISHINGS | 936 |
| HOTEL & LODGING | 1,667 |
| INDUSTRIAL MARKETING | 6,881 |
| INSURANCE | 852 |
| PERSONAL SERVICES | 3,212 |
| REAL ESTATE | 3,566 |
| RECREATION & TOURISM | 2,023 |
| TRANSPORTATION | 1,353 |
| OTHER RETAIL TRADES | 5,843 |
| OTHER DISTRIBUTIVE EDUCATION | 15,796 |
| DENTAL ASSISTING | 1,100 |
| DENTAL HYGIENE(ASSOCIATE DEGREE) | 153 |
| DENTAL LABORATORY TECHNOLOGY | 127 |
| MEDICAL LABORATORY ASSISTING | 511 |
| OTHER MEDICAL LABORATORY TECHNOLOGY | 109 |
| NURSING(ASSOCIATE DEGREE) | 861 |
| PRACTICAL(VOCATIONAL)NURSING | 656 |
| NURSING ASSISTANCE(AIDE) | 3,261 |
| OTHER NURSING | 411 |
| REHABILITATION | 435 |
| RADIOLOGIC TECHNOLOGY(X-RAY) | 113 |
| MENTAL HEALTH TECHNOLOGY | 978 |
| INHALATION THERAPY | 231 |
| MEDICAL ASSISTANT | 709 |
| COMMUNITY HEALTH AIDE | 905 |
| MEDICAL EMERGENCY TECHNICIAN | 134 |

TABLE E-12.-- NUMBER OF ENROLLMENTS IN COOPERATIVE EDUCATION PROGRAMS BY PROGRAM
UNITED STATES, OUTLYING AREAS 1978-79.

| PROGRAM | COOPERATIVE VOCATIONAL EDUCATION ENROLLMENT |
|---|---|
| OTHER HEALTH OCCUPATIONS EDUCATION | 6,153 |
| CARE & GUIDANCE OF CHILDREN | 8,697 |
| CLOTHING MGT., PRODUCTION, & SERVICES | 2,147 |
| FOOD MGT., PRODUCTION, & SERVICES | 15,572 |
| HOME FURN., EQUIPMENT, & SERVICES | 489 |
| INSTITUTIONAL & HOME MGT. & SUP. | 1,659 |
| OTHER OCCUP. PREP. FOR HOMEMAKING | 6,306 |
| ACCOUNTING & COMPUTING OCCUPATIONS | 13,104 |
| COMPUTER & CONSOLE OPERATORS | 999 |
| PROGRAMMERS | 1,678 |
| OTHER BUSINESS DATA PROCESSING | 2,656 |
| FILING, OFFICE MACHINES, & GEN. OFF. | 26,800 |
| INFORMATION, COMMUNICATION OCCUP. | 1,589 |
| MATERIALS SUPPORT OCCUPATIONS | 800 |
| PERSONNEL, TRAINING, & RELATED | 3,641 |
| STENOGRAPHIC, SECRETARIAL, & RELATED | 28,418 |
| SUPERVISORY & ADMINISTRATIVE MGT. | 2,501 |
| TYPING & RELATED OCCUPATIONS | 14,021 |
| OTHER OFFICE OCCUPATIONS | 13,117 |
| ARCHITECTURAL TECHNOLOGY | 1,003 |
| AUTOMOTIVE TECHNOLOGY | 175 |
| CIVIL TECHNOLOGY | 530 |
| ELECTRICAL TECHNOLOGY | 774 |
| ELECTRONIC TECHNOLOGY | 1,336 |
| ENVIRONMENTAL-CONTROL TECHNOLOGY | 119 |
| INDUSTRIAL TECHNOLOGY | 355 |
| MECHANICAL TECHNOLOGY | 600 |
| SCIENTIFIC DATA PROCESSING | 644 |
| COMMERCIAL PILOT TRAINING | 38 |
| FIRE & FIRE SAFETY TECHNOLOGY | 87 |
| POLICE SCIENCE TECHNOLOGY | 835 |
| OTHER TECHNICAL EDUCATION | 1,421 |
| WATER & WASTE WATER TECHNOLOGY | 76 |
| AIR CONDITIONING | 1,193 |
| APPLIANCE REPAIR | 1,148 |
| BODY & FENDER REPAIR | 3,012 |
| AUTO MECHANICS | 11,317 |
| AUTOMOTIVE SPECIALIZATION | 1,872 |
| AVIATION OCCUPATIONS | 299 |
| COMMERCIAL ART OCCUPATIONS | 1,139 |
| COMMERCIAL PHOTOGRAPHY OCCUP. | 436 |
| CARPENTRY | 7,471 |
| ELECTRICITY | 1,137 |

TABLE F-12.-- NUMBER OF ENROLLMENTS IN COOPERATIVE EDUCATION PROGRAMS BY PROGRAM:
UNITED STATES, OUTLYING AREAS 1978-79.

| PROGRAM | COOPERATIVE VOCATIONAL EDUCATION ENROLLMENT |
|---|---|
| MASONRY | 1,268 |
| PLUMBING & PIPEFITTING | 2,109 |
| OTHER CONSTRUCTION & MAINTENANCE | 6,694 |
| CUSTODIAL SERVICES | 2,830 |
| DIESEL MECHANIC | 880 |
| DRAFTING OCCUPATIONS | 2,296 |
| ELECTRICAL OCCUPATIONS | 2,548 |
| ELECTRONICS OCCUPATIONS | 2,216 |
| FOREMANSHIP, SUPER., & MGT. DEVEL. | 1,796 |
| GRAPHIC ARTS OCCUPATIONS | 3,484 |
| INSTRUMENT MAINTENANCE & REPAIR | 262 |
| MARITIME OCCUPATIONS | 687 |
| MACHINE SHOP | 4,532 |
| MACHINE TOOL OCCUPATION | 555 |
| SHEET METAL | 1,291 |
| WELDING & CUTTING | 2,866 |
| TOOL & DIE MAKING | 119 |
| OTHER METALWORKING OCCUPATIONS | 1,974 |
| METALLURGY OCCUPATIONS | 64 |
| COSMETOLOGY | 1,720 |
| OTHER PERSONAL SERVICES | 1,121 |
| PLASTICS OCCUPATIONS | 397 |
| FIREMAN TRAINING | 337 |
| LAW ENFORCEMENT TRAINING | 991 |
| OTHER PUBLIC SERVICE OCCUPATIONS | 1,393 |
| QUANTITY FOOD OCCUPATIONS | 8,084 |
| REFRIGERATION | 145 |
| SMALL ENGINE REPAIR | 858 |
| STATIONARY ENERGY SOURCES OCCUP. | 68 |
| TEXTILE PRODUCTION & FABRICATION | 3,050 |
| UPHOLSTERING | 423 |
| WOODWORKING OCCUPATIONS | 2,730 |
| OTHER TRADE & INDUSTRIAL OCCUPATIONS | 25,681 |
| OTHER PROGRAMS,GREATER THAN 1% OF TOTAL | 43,576 |
| OTHER PROGRAMS,LESS THAN 1% OF TOTAL | 19,896 |
| TOTAL | 536,961 |

## TABLE F-13.--NUMBER OF PROGRAM COMPLETERS BY LEVEL AND TRANSFERS BY STATE: UNITED STATES, OUTLYING AREAS 1978-79.

| STATE | ----------------COMPLETERS BY PROGRAM LEVEL---------------- | | | | |
|---|---|---|---|---|---|
| | TOTAL | GRADES 11&12 | POST-SECONDARY | ADULT (LONG-TERM) | TRANSFERS |
| ALABAMA | 36,203 | 23,444 | 5,880 | 6,879 | 2,367 |
| ALASKA | 11,307 | 3,477 | 6,452 | 1,378 | 0 |
| ARIZONA | 0 | 0 | 0 | 0 | 0 |
| ARKANSAS | 14,253 | 11,017 | 195 | 3,041 | 785 |
| CALIFORNIA | 379,673 | 379,673 | 0 | 0 | 0 |
| COLORADO | 21,751 | 16,261 | 1,721 | 3,769 | 1,559 |
| CONNECTICUT | 22,311 | 19,138 | 1,521 | 1,652 | 0 |
| DELAWARE | 6,578 | 2,989 | 2,454 | 1,135 | 0 |
| DISTRICT OF COLUMBIA | 4,328 | 3,917 | 237 | 174 | 433 |
| FLORIDA | 51,099 | 33,888 | 6,859 | 10,352 | 0 |
| GEORGIA | 8,098 | 0 | 7,774 | 324 | 846 |
| HAWAII | 9,515 | 7,217 | 1,413 | 885 | 540 |
| IDAHO | 4,389 | 2,406 | 1,838 | 145 | 0 |
| ILLINOIS | 114,310 | 95,707 | 12,461 | 6,142 | 1,954 |
| INDIANA | 10,244 | 9,525 | 0 | 719 | 0 |
| IOWA | 17,757 | 9,931 | 3,292 | 4,534 | 466 |
| KANSAS | 20,666 | 9,565 | 5,316 | 5,785 | 0 |
| KENTUCKY | 19,292 | 16,453 | 434 | 2,405 | 1,061 |
| LOUISIANA | 42,751 | 38,871 | 0 | 3,880 | 0 |
| MAINE | 5,582 | 4,280 | 318 | 984 | 179 |
| MARYLAND | 38,354 | 25,712 | 12,642 | 0 | 457 |
| MASSACHUSETTS | 47,629 | 36,110 | 5,939 | 5,580 | 0 |
| MICHIGAN | 82,794 | 75,550 | 6,373 | 871 | 5,174 |
| MINNESOTA | 61,459 | 42,054 | 19,405 | 0 | 0 |
| MISSISSIPPI | 18,867 | 12,579 | 1,560 | 4,728 | 514 |
| MISSOURI | 51,299 | 37,472 | 4,319 | 9,508 | 0 |
| NEBRASKA | 12,693 | 9,369 | 2,140 | 1,184 | 0 |
| NEVADA | 2,441 | 2,251 | 179 | 11 | 38 |
| NEW HAMPSHIRE | 4,516 | 3,495 | 915 | 106 | 148 |
| NEW JERSEY | 29,602 | 19,820 | 5,806 | 3,976 | 1,729 |
| NEW MEXICO | 8,019 | 5,868 | 72 | 2,079 | 360 |
| NEW YORK | 0 | 0 | 0 | 0 | 0 |
| NORTH CAROLINA | 39,241 | 39,241 | 0 | 0 | 377 |
| NORTH DAKOTA | 6,839 | 4,598 | 1,141 | 1,100 | 0 |
| OHIO | 121,998 | 99,428 | 7,180 | 15,390 | 40,228 |
| OKLAHOMA | 17,983 | 12,664 | 2,743 | 2,576 | 4,091 |
| OREGON | 16,356 | 12,799 | 3,120 | 437 | 0 |
| PENNSYLVANIA | 74,675 | 63,177 | 6,466 | 5,032 | 4,929 |
| RHODE ISLAND | 6,765 | 4,999 | 1,766 | 0 | 0 |
| SOUTH CAROLINA | 22,939 | 17,094 | 3,332 | 2,513 | 2,279 |
| SOUTH DAKOTA | 6,159 | 4,770 | 0 | 1,389 | 180 |
| TENNESSEE | 26,894 | 18,428 | 2,409 | 6,057 | 834 |

TABLE E-13.--NUMBER OF PROGRAM COMPLETERS BY LEVEL AND TRANSFERS BY STATE: UNITED STATES, OUTLYING AREAS 1978-79.

| STATE | TOTAL | GRADES 11&12 | POST-SECONDARY | ADULT (LONG-TERM) | TRANSFERS |
|---|---|---|---|---|---|
| | ----------------COMPLETERS BY PROGRAM LEVEL---------------- | | | | |
| TEXAS | 113,956 | 47,911 | 35,861 | 30,184 | 0 |
| UTAH | 17,218 | 12,611 | 4,600 | 7 | 0 |
| VERMONT | 3,373 | 3,205 | 0 | 168 | 344 |
| VIRGINIA | 34,498 | 27,072 | 4,452 | 2,974 | 1,690 |
| WASHINGTON | 37,843 | 24,800 | 7,839 | 5,204 | 0 |
| WEST VIRGINIA | 14,088 | 10,694 | 1,642 | 1,752 | 5,222 |
| WISCONSIN | 19,727 | 11,743 | 3,761 | 4,223 | 81 |
| WYOMING | 1,722 | 1,527 | 159 | 36 | 0 |
| TOTAL U.S. | 1,740,054 | 1,374,800 | 203,986 | 161,268 | 79,465 |
| AMERICAN SAMOA | 387 | 358 | 29 | 0 | 0 |
| NORTHERN MARIANAS | 79 | 79 | 0 | 0 | 16 |
| GUAM | 255 | 195 | 0 | 60 | 49 |
| PUERTO RICO | 12,997 | 8,013 | 468 | 4,516 | 0 |
| TRUST TERRITORY | 699 | 625 | 74 | 0 | 4 |
| OUTLYING AREAS | 14,417 | 9,270 | 571 | 4,576 | 69 |
| U.S. & OUTLYING AREA | 1,754,471 | 1,384,070 | 204,557 | 165,844 | 79,534 |

## TABLE E-14.--NUMBER OF PROGRAM COMPLETERS BY INSTRUCTIONAL PROGRAM BY STATE: UNITED STATES, OUTLYING AREAS 1978-79.

| STATE | TOTAL | AGRI-CULTURE | DISTRI-BUTION | HEALTH | OCCUP. HOME ECON | OFFICE OCCUP. | TECH-NICAL | TRADE & INDUS | OTHER NEC |
|---|---|---|---|---|---|---|---|---|---|
| ALABAMA | 36,203 | 3,685 | 3,588 | 3,485 | 1,442 | 9,184 | 653 | 12,733 | 1,433 |
| ALASKA | 11,307 | 144 | 934 | 769 | 285 | 4,026 | 940 | 2,935 | 1,274 |
| ARIZONA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ARKANSAS | 14,253 | 3,119 | 1,656 | 1,253 | 448 | 3,938 | 7 | 3,832 | 0 |
| CALIFORNIA | 379,673 | 21,055 | 36,596 | 24,457 | 20,131 | 156,137 | 14,118 | 104,665 | 2,514 |
| COLORADO | 21,751 | 686 | 173 | 1,993 | 1,206 | 8,321 | 992 | 4,859 | 3,521 |
| CONNECTICUT | 22,311 | 319 | 1,140 | 1,695 | 526 | 11,327 | 101 | 7,203 | 0 |
| DELAWARE | 6,578 | 401 | 369 | 503 | 266 | 2,812 | 648 | 1,579 | 0 |
| DISTRICT OF COLUMBIA | 4,328 | 38 | 302 | 64 | 2,335 | 795 | 0 | 794 | 0 |
| FLORIDA | 51,099 | 2,151 | 5,106 | 5,944 | 2,657 | 14,325 | 1,357 | 11,522 | 8,037 |
| GEORGIA | 8,098 | 46 | 115 | 1,342 | 222 | 1,252 | 476 | 3,105 | 1,540 |
| HAWAII | 9,515 | 610 | 828 | 182 | 513 | 4,138 | 313 | 2,549 | 382 |
| IDAHO | 4,389 | 589 | 453 | 389 | 33 | 1,286 | 99 | 1,449 | 91 |
| ILLINOIS | 114,310 | 6,243 | 9,411 | 7,811 | 13,030 | 40,797 | 1,495 | 34,302 | 1,221 |
| INDIANA | 10,244 | 3,475 | 182 | 138 | 295 | 1,186 | 0 | 4,968 | 0 |
| IOWA | 17,757 | 4,417 | 1,848 | 2,439 | 448 | 2,255 | 418 | 5,932 | 0 |
| KANSAS | 20,666 | 1,930 | 1,284 | 3,407 | 1,350 | 4,570 | 443 | 7,682 | 0 |
| KENTUCKY | 19,292 | 2,626 | 2,187 | 2,076 | 1,055 | 5,640 | 91 | 5,617 | 0 |
| LOUISIANA | 42,751 | 4,135 | 3,044 | 1,549 | 2,260 | 24,840 | 125 | 6,393 | 405 |
| MAINE | 5,582 | 320 | 794 | 680 | 296 | 609 | 190 | 2,644 | 49 |
| MARYLAND | 38,354 | 880 | 2,077 | 3,533 | 563 | 15,917 | 3,604 | 7,309 | 4,471 |
| MASSACHUSETTS | 47,629 | 1,696 | 3,205 | 3,183 | 2,528 | 22,613 | 1,098 | 12,621 | 685 |
| MICHIGAN | 82,794 | 6,374 | 13,732 | 5,685 | 5,756 | 17,970 | 1,738 | 29,929 | 1,610 |
| MINNESOTA | 61,459 | 7,837 | 8,179 | 4,879 | 2,762 | 14,867 | 1,211 | 21,724 | 0 |
| MISSISSIPPI | 18,867 | 2,964 | 3,258 | 929 | 660 | 2,673 | 405 | 7,978 | 0 |
| MISSOURI | 51,299 | 5,442 | 7,796 | 3,366 | 1,311 | 12,451 | 1,841 | 19,092 | 0 |
| NEBRASKA | 12,693 | 1,945 | 1,599 | 779 | 134 | 4,541 | 6 | 3,641 | 48 |
| NEVADA | 2,441 | 63 | 2 | 85 | 54 | 1,046 | 92 | 1,099 | 0 |
| NEW HAMPSHIRE | 4,516 | 422 | 371 | 370 | 225 | 1,226 | 123 | 1,485 | 294 |
| NEW JERSEY | 29,602 | 417 | 4,537 | 3,717 | 1,191 | 6,941 | 2,717 | 10,082 | 0 |
| NEW MEXICO | 8,019 | 774 | 1,278 | 692 | 547 | 2,406 | 113 | 2,107 | 102 |
| NEW YORK | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NORTH CAROLINA | 39,241 | 5,211 | 6,228 | 2,364 | 3,071 | 6,735 | 0 | 15,632 | 0 |
| NORTH DAKOTA | 6,839 | 1,180 | 469 | 1,032 | 280 | 1,831 | 315 | 1,732 | 0 |
| OHIO | 121,998 | 11,162 | 15,835 | 8,083 | 6,998 | 25,975 | 1,657 | 35,046 | 17,242 |
| OKLAHOMA | 17,983 | 2,893 | 2,080 | 1,816 | 598 | 3,674 | 824 | 5,973 | 125 |
| OREGON | 16,356 | 1,295 | 1,098 | 1,399 | 323 | 6,721 | 571 | 4,949 | 0 |
| PENNSYLVANIA | 74,675 | 2,935 | 4,630 | 4,889 | 2,413 | 27,941 | 3,592 | 20,152 | 8,123 |
| RHODE ISLAND | 6,765 | 287 | 397 | 529 | 352 | 3,417 | 392 | 1,391 | 0 |
| SOUTH CAROLINA | 22,939 | 2,212 | 1,921 | 1,809 | 964 | 5,657 | 880 | 9,496 | 0 |
| SOUTH DAKOTA | 6,159 | 856 | 1,045 | 710 | 182 | 801 | 0 | 2,296 | 269 |
| TENNESSEE | 26,894 | 1,499 | 3,058 | 2,162 | 1,533 | 6,918 | 881 | 10,819 | 24 |
| TEXAS | 113,956 | 9,010 | 23,208 | 11,789 | 7,716 | 25,068 | 4,248 | 31,102 | 1,815 |

## TABLE E-14.--NUMBER OF PROGRAM COMPLETERS BY INSTRUCTIONAL PROGRAM BY STATE: UNITED STATES, OUTLYING AREAS 1978-79.

| STATE | TOTAL | AGRI-CULTURE | DISTRI-BUTION | HEALTH | OCCUP. HOME ECON | OFFICE OCCUP. | TECH-NICAL | TRADE & INDUS | OTHER NEC |
|---|---|---|---|---|---|---|---|---|---|
| UTAH | 17,218 | 599 | 1,911 | 1,102 | 762 | 4,868 | 264 | 7,506 | 206 |
| VERMONT | 3,373 | 288 | 56 | 301 | 141 | 1,197 | 0 | 1,324 | 66 |
| VIRGINIA | 34,498 | 2,115 | 5,787 | 2,784 | 1,378 | 9,717 | 1,063 | 11,327 | 327 |
| WASHINGTON | 37,843 | 4,005 | 5,345 | 2,770 | 894 | 14,168 | 897 | 9,737 | 27 |
| WEST VIRGINIA | 14,088 | 669 | 1,231 | 1,888 | 520 | 4,612 | 597 | 4,440 | 131 |
| WISCONSIN | 19,727 | 2,576 | 1,805 | 1,536 | 853 | 4,497 | 912 | 3,708 | 3,840 |
| WYOMING | 1,722 | 302 | 299 | 221 | 34 | 451 | 24 | 391 | 0 |
| TOTAL U.S. | 1,740,054 | 133,897 | 192,447 | 134,578 | 93,541 | 554,337 | 52,531 | 518,851 | 59,872 |
| AMERICAN SAMOA | 387 | 15 | 2 | 9 | 0 | 297 | 7 | 57 | 0 |
| NORTHERN MARIANAS | 79 | 0 | 0 | 0 | 0 | 10 | 0 | 67 | 2 |
| GUAM | 255 | 8 | 15 | 0 | 0 | 50 | 0 | 163 | 19 |
| PUERTO RICO | 12,997 | 507 | 1,302 | 748 | 508 | 3,813 | 505 | 5,614 | 0 |
| TRUST TERRITORY | 699 | 94 | 0 | 0 | 0 | 27 | 0 | 387 | 191 |
| OUTLYING AREAS | 14,417 | 624 | 1,319 | 757 | 508 | 4,197 | 512 | 6,288 | 212 |
| U.S. & OUTLYING AREAS | 1,754,471 | 134,521 | 193,766 | 135,335 | 94,049 | 558,534 | 53,043 | 525,139 | 60,084 |

TABLE F-15.--NUMBER OF PROGRAM COMPLETERS BY LEVEL AND TRANSFERS BY INSTRUCTIONAL PROGRAM:
UNITED STATES, OUTLYING AREAS 1978-79.

| PROGRAM | TOTAL | GRADES 11&12 | POST-SECONDARY | ADULT (LONG-TERM) | TRANSFERS |
|---|---|---|---|---|---|
| | ----------------COMPLETERS BY PROGRAM LEVEL | | | ---------------- | |
| AGRICULTURAL PRODUCTION | 56,648 | 52,409 | 1,797 | 2,442 | 4,130 |
| AGRICULTURAL SUPPLIES/SERVICES | 8,162 | 6,653 | 1,023 | 486 | 237 |
| AGRICULTURAL MECHANICS | 27,376 | 26,338 | 475 | 563 | 1,147 |
| AGRICULTURAL PRODUCTS | 2,204 | 1,762 | 182 | 260 | 79 |
| HORTICULTURE | 24,317 | 21,515 | 1,444 | 1,358 | 1,476 |
| RENEWABLE NATURAL RESOURCES | 5,086 | 4,330 | 611 | 145 | 411 |
| FORESTRY | 3,851 | 3,264 | 431 | 156 | 182 |
| OTHER AGRICULTURE | 6,877 | 6,646 | 134 | 97 | 42 |
| ADVERTISING SERVICES | 2,662 | 2,089 | 464 | 109 | 195 |
| APPAREL & ACCESSORIES | 9,001 | 8,092 | 773 | 136 | 355 |
| AUTOMOTIVE | 3,063 | 2,756 | 112 | 195 | 82 |
| FINANCE & CREDIT | 4,366 | 2,560 | 1,351 | 455 | 50 |
| FLORISTRY | 1,435 | 1,025 | 71 | 339 | 40 |
| FOOD DISTRIBUTION | 14,097 | 12,379 | 616 | 1,102 | 295 |
| FOOD SERVICES | 17,665 | 16,802 | 342 | 521 | 560 |
| GENERAL MERCHANDISE | 75,884 | 70,696 | 3,110 | 2,078 | 3,020 |
| HARDWARE, BUILDING MATERIALS, ETC. | 1,787 | 1,731 | 45 | 11 | 73 |
| HOME FURNISHINGS | 940 | 781 | 158 | 1 | 21 |
| HOTEL & LODGING | 2,270 | 1,212 | 726 | 332 | 172 |
| INDUSTRIAL MARKETING | 3,762 | 1,396 | 1,800 | 566 | 62 |
| INSURANCE | 2,959 | 1,832 | 158 | 969 | 23 |
| PERSONAL SERVICES | 2,348 | 2,263 | 80 | 5 | 120 |
| REAL ESTATE | 27,174 | 11,685 | 6,215 | 9,274 | 58 |
| RECREATION & TOURISM | 2,706 | 2,338 | 316 | 52 | 72 |
| TRANSPORTATION | 3,182 | 2,216 | 693 | 273 | 124 |
| OTHER RETAIL TRADES | 5,741 | 5,330 | 315 | 96 | 305 |
| OTHER DISTRIBUTIVE EDUCATION | 12,724 | 11,093 | 1,391 | 240 | 248 |
| DENTAL ASSISTING | 7,101 | 3,794 | 1,344 | 1,963 | 321 |
| DENTAL HYGIENE(ASSOCIATE DEGREE) | 2,130 | 102 | 2,011 | 17 | 130 |
| DENTAL LABORATORY TECHNOLOGY | 934 | 222 | 578 | 134 | 20 |
| MEDICAL LABORATORY ASSISTING | 2,623 | 863 | 1,511 | 249 | 148 |
| OTHER MEDICAL LABORATORY TECHNOLOGY | 1,078 | 100 | 907 | 71 | 145 |
| NURSING(ASSOCIATE DEGREE) | 22,109 | 2,940 | 18,375 | 794 | 1,517 |
| PRACTICAL(VOCATIONAL)NURSING | 29,625 | 3,911 | 7,255 | 18,459 | 1,161 |
| NURSING ASSISTANCE(AIDE) | 22,098 | 17,397 | 1,539 | 3,162 | 533 |
| OTHER NURSING | 3,866 | 2,072 | 735 | 1,059 | 115 |
| REHABILITATION | 1,271 | 265 | 925 | 81 | 17 |
| RADIOLOGIC TECHNOLOGY(X-RAY) | 2,715 | 518 | 1,980 | 217 | 173 |
| MENTAL HEALTH TECHNOLOGY | 2,245 | 539 | 1,611 | 95 | 140 |
| INHALATION THERAPY | 2,925 | 653 | 1,484 | 788 | 164 |
| MEDICAL ASSISTANT | 6,447 | 4,975 | 729 | 743 | 243 |
| COMMUNITY HEALTH AIDE | 3,595 | 3,271 | 69 | 255 | 86 |

## TABLE F-15.--NUMBER OF PROGRAM COMPLETERS BY LEVEL AND TRANSFERS BY INSTRUCTIONAL PROGRAM: UNITED STATES, OUTLYING AREAS 1978-79.

| PROGRAM | TOTAL | GRADES 11&12 | POST-SECONDARY | ADULT (LONG-TERM) | TRANSFERS |
|---|---|---|---|---|---|
| MEDICAL EMERGENCY TECHNICIAN | 7,262 | 3,569 | 950 | 2,723 | 1 |
| OTHER HEALTH OCCUPATIONS EDUCATION | 17,311 | 12,740 | 2,508 | 2,063 | 712 |
| CARE & GUIDANCE OF CHILDREN | 34,735 | 30,701 | 2,589 | 1,445 | 1,437 |
| CLOTHING MGT., PRODUCTION, & SERVICES | 12,698 | 11,432 | 369 | 897 | 551 |
| FOOD MGT., PRODUCTION, & SERVICES | 35,135 | 32,719 | 606 | 1,810 | 1,952 |
| HOME FURN., EQUIPMENT, & SERVICES | 2,840 | 1,870 | 325 | 645 | 95 |
| INSTITUTIONAL & HOME MGT. & SUP. | 2,817 | 2,520 | 25 | 272 | 257 |
| OTHER OCCUP. PREP. FOR HOMEMAKING | 5,824 | 4,700 | 683 | 441 | 214 |
| ACCOUNTING & COMPUTING OCCUPATIONS | 103,240 | 88,870 | 11,356 | 3,014 | 2,971 |
| COMPUTE & CONSOLE OPERATORS | 10,326 | 8,166 | 1,507 | 653 | 270 |
| PROGRAMMERS | 12,427 | 7,559 | 4,158 | 710 | 856 |
| OTHER BUSINESS DATA PROCESSING | 20,112 | 16,515 | 2,019 | 1,578 | 667 |
| FILING, OFFICE MACHINES, & GEN. OFF. | 124,839 | 117,425 | 3,752 | 3,662 | 6,078 |
| INFORMATION, COMMUNICATION OCCUP. | 11,271 | 10,711 | 502 | 58 | 186 |
| MATERIALS SUPPORT OCCUPATIONS | 1,421 | 874 | 128 | 419 | 21 |
| PERSONNEL, TRAINING, & RELATED | 5,810 | 4,843 | 513 | 454 | 126 |
| STENOGRAPHIC, SECRETARIAL, & RELATED | 135,844 | 108,622 | 18,606 | 8,616 | 5,531 |
| SUPERVISORY & ADMINISTRATIVE MGT. | 17,925 | 8,009 | 8,281 | 1,635 | 408 |
| TYPING & RELATED OCCUPATIONS | 102,922 | 98,735 | 1,347 | 2,840 | 1,177 |
| OTHER OFFICE OCCUPATIONS | 12,397 | 10,985 | 932 | 480 | 158 |
| ARCHITECTURAL TECHNOLOGY | 4,113 | 1,127 | 2,657 | 329 | 180 |
| AUTOMOTIVE TECHNOLOGY | 1,194 | 233 | 873 | 88 | 240 |
| CIVIL TECHNOLOGY | 2,878 | 677 | 1,818 | 383 | 219 |
| ELECTRICAL TECHNOLOGY | 2,349 | 555 | 1,613 | 221 | 616 |
| ELECTRONIC TECHNOLOGY | 12,041 | 4,355 | 6,558 | 1,128 | 600 |
| ENVIRONMENTAL-CONTROL TECHNOLOGY | 927 | 181 | 665 | 81 | 93 |
| INDUSTRIAL TECHNOLOGY | 892 | 182 | 683 | 27 | 27 |
| MECHANICAL TECHNOLOGY | 2,978 | 466 | 2,105 | 407 | 458 |
| SCIENTIFIC DATA PROCESSING | 2,491 | 1,519 | 788 | 184 | 46 |
| COMMERCIAL PILOT TRAINING | 1,277 | 1,026 | 230 | 21 | 1 |
| FIRE & FIRE SAFETY TECHNOLOGY | 2,233 | 996 | 1,155 | 82 | 0 |
| POLICE SCIENCE TECHNOLOGY | 9,625 | 5,210 | 4,345 | 70 | 223 |
| OTHER TECHNICAL EDUCATION | 9,458 | 2,080 | 6,164 | 1,214 | 527 |
| WATER & WASTE WATER TECHNOLOGY | 552 | 123 | 359 | 70 | 8 |
| AIR CONDITIONING | 11,699 | 6,390 | 2,030 | 3,279 | 630 |
| APPLIANCE REPAIR | 3,505 | 2,630 | 292 | 583 | 275 |
| BODY & FENDER REPAIR | 20,913 | 16,897 | 1,450 | 2,566 | 1,571 |
| AUTO MECHANICS | 77,836 | 66,410 | 4,470 | 6,956 | 4,223 |
| AUTOMOTIVE SPECIALIZATION | 9,176 | 8,685 | 365 | 126 | 77 |
| AVIATION OCCUPATIONS | 5,626 | 2,988 | 965 | 1,673 | 216 |
| COMMERCIAL ART OCCUPATIONS | 8,637 | 6,633 | 1,641 | 303 | 485 |
| COMMERCIAL PHOTOGRAPHY OCCUP. | 4,855 | 4,096 | 416 | 343 | 44 |

## TABLE F-15.--NUMBER OF PROGRAM COMPLETERS BY LEVEL AND TRANSFERS BY INSTRUCTIONAL PROGRAM: UNITED STATES, OUTLYING AREAS 1978-79.

| PROGRAM | COMPLETERS BY PROGRAM LEVEL TOTAL | GRADES 11&12 | POST-SECONDARY | ADULT (LONG-TERM) | TRANSFERS |
|---|---|---|---|---|---|
| CARPENTRY | 38,447 | 31,078 | 1,509 | 5,860 | 2,022 |
| ELECTRICITY | 10,584 | 7,415 | 439 | 2,730 | 806 |
| MASONRY | 8,748 | 7,072 | 251 | 1,425 | 607 |
| PLUMBING & PIPEFITTING | 5,519 | 2,327 | 349 | 2,843 | 84 |
| OTHER CONSTRUCTION & MAINTENANCE | 23,005 | 17,950 | 1,254 | 3,801 | 1,255 |
| CUSTODIAL SERVICES | 2,977 | 2,405 | 127 | 445 | 238 |
| DIESEL MECHANIC | 7,412 | 3,334 | 1,909 | 2,169 | 299 |
| DRAFTING OCCUPATIONS | 28,807 | 23,611 | 2,371 | 2,825 | 1,501 |
| ELECTRICAL OCCUPATIONS | 8,924 | 5,702 | 622 | 2,600 | 429 |
| ELECTRONICS OCCUPATIONS | 25,562 | 20,908 | 2,165 | 2,489 | 1,331 |
| FOREMANSHIP, SUPER., & MGT. DEVEL. | 3,133 | 1,560 | 946 | 627 | 11 |
| GRAPHIC ARTS OCCUPATIONS | 22,576 | 20,017 | 1,457 | 1,102 | 1,336 |
| INSTRUMENT MAINTENANCE & REPAIR | 876 | 426 | 189 | 261 | 94 |
| MARITIME OCCUPATIONS | 1,116 | 823 | 143 | 150 | 46 |
| MACHINE SHOP | 23,357 | 17,947 | 1,893 | 3,517 | 1,563 |
| MACHINE TOOL OCCUPATION | 1,873 | 1,189 | 224 | 460 | 68 |
| SHEET METAL | 3,332 | 2,200 | 116 | 1,016 | 108 |
| WELDING & CUTTING | 33,635 | 23,471 | 3,257 | 6,907 | 1,734 |
| TOOL & DIE MAKING | 1,006 | 365 | 287 | 354 | 9 |
| OTHER METALWORKING OCCUPATIONS | 10,071 | 9,087 | 296 | 688 | 139 |
| METALLURGY OCCUPATIONS | 233 | 191 | 20 | 22 | 7 |
| COSMETOLOGY | 26,986 | 21,942 | 1,686 | 3,358 | 1,925 |
| OTHER PERSONAL SERVICES | 874 | 623 | 128 | 123 | 16 |
| PLASTICS OCCUPATIONS | 1,180 | 1,108 | 31 | 41 | 4 |
| FIREMAN TRAINING | 6,005 | 4,748 | 694 | 563 | 72 |
| LAW ENFORCEMENT TRAINING | 12,496 | 6,356 | 4,098 | 2,042 | 236 |
| OTHER PUBLIC SERVICE OCCUPATIONS | 4,139 | 3,083 | 545 | 511 | 46 |
| QUANTITY FOOD OCCUPATIONS | 10,774 | 8,248 | 1,243 | 1,283 | 348 |
| REFRIGERATION | 1,188 | 791 | 169 | 228 | 35 |
| SMALL ENGINE REPAIR | 8,314 | 6,236 | 480 | 1,598 | 436 |
| STATIONARY ENERGY SOURCES OCCUP. | 554 | 405 | 20 | 129 | 33 |
| TEXTILE PRODUCTION & FABRICATION | 5,911 | 5,004 | 238 | 669 | 196 |
| UPHOLSTERING | 2,539 | 1,661 | 244 | 634 | 133 |
| WOODWORKING OCCUPATIONS | 10,575 | 9,445 | 236 | 894 | 149 |
| OTHER TRADE & INDUSTRIAL OCCUPATIONS | 30,164 | 25,145 | 1,674 | 3,345 | 839 |
| OTHER PROGRAMS,GREATER THAN 1% OF TOTAL | 51,071 | 44,195 | 3,793 | 3,083 | 8,306 |
| OTHER PROGRAMS,LESS THAN 1% OF TOTAL | 9,013 | 8,163 | 755 | 95 | 64 |
| TOTAL | 1,754,471 | 1,384,070 | 204,557 | 165,844 | 79,534 |

## TABLE F-16.-- NUMBER OF LEAVERS BY PROGRAM LEVEL AND PERCENT OF COMPLETION BY STATE: UNITED STATES, OUTLYING AREAS 1978-79.

| STATE | PROGRAM LEVEL | | | | | |
|---|---|---|---|---|---|---|
| | COMPLETED MORE THAN 50 PERCENT | | | COMPLETED 50 PERCENT OR LESS | | |
| | GRADES 11 & 12 | POST-SECONDARY | ADULT (LONG-TERM) | GRADES 11 & 12 | POST-SECONDARY | ADULT (LONG-TERM) |
| ALABAMA | 3,682 | 4,277 | 4,656 | 5,592 | 4,810 | 9,015 |
| ALASKA | 0 | 0 | 0 | 0 | 0 | 0 |
| ARIZONA | 0 | 0 | 0 | 0 | 0 | 0 |
| ARKANSAS | 1,841 | 14 | 907 | 1,761 | 67 | 1,846 |
| CALIFORNIA | 68,130 | 0 | 0 | 0 | 0 | 0 |
| COLORADO | 984 | 2,467 | 2,811 | 2,507 | 2,076 | 4,781 |
| CONNECTICUT | 794 | 602 | 180 | 1,274 | 3 | 528 |
| DELAWARE | 191 | 0 | 0 | 73 | 0 | 0 |
| DISTRICT OF COLUMBIA | 0 | 0 | 0 | 0 | 0 | 0 |
| FLORIDA | 2,164 | 0 | 749 | 0 | 0 | 0 |
| GEORGIA | 0 | 1,808 | 117 | 0 | 14,822 | 1,389 |
| HAWAII | 0 | 3,238 | 968 | 0 | 0 | 0 |
| IDAHO | 844 | 463 | 12 | 1,222 | 682 | 8 |
| ILLINOIS | 9,733 | 5,577 | 1,795 | 3,651 | 3,438 | 1,424 |
| INDIANA | 938 | 0 | 69 | 917 | 0 | 163 |
| IOWA | 785 | 794 | 1,163 | 412 | 1,850 | 2,155 |
| KANSAS | 8,415 | 3,407 | 3,945 | 2,923 | 621 | 4,051 |
| KENTUCKY | 3,677 | 36 | 926 | 7,185 | 142 | 3,134 |
| LOUISIANA | 0 | 0 | 0 | 0 | 0 | 0 |
| MAINE | 474 | 172 | 485 | 579 | 51 | 247 |
| MARYLAND | 183 | 0 | 0 | 499 | 0 | 0 |
| MASSACHUSETTS | 544 | 377 | 1,036 | 0 | 0 | 0 |
| MICHIGAN | 5,613 | 2,781 | 264 | 8,444 | 6,971 | 641 |
| MINNESOTA | 0 | 0 | 0 | 0 | 0 | 0 |
| MISSISSIPPI | 1,407 | 446 | 414 | 2,028 | 1,110 | 1,648 |
| MISSOURI | 0 | 0 | 0 | 0 | 0 | 0 |
| NEBRASKA | 899 | 734 | 83 | 1,831 | 1,083 | 158 |
| NEVADA | 368 | 53 | 0 | 441 | 112 | 0 |
| NEW HAMPSHIRE | 367 | 68 | 23 | 757 | 338 | 34 |
| NEW JERSEY | 2,056 | 0 | 395 | 1,669 | 0 | 1,483 |
| NEW MEXICO | 696 | 0 | 138 | 1,575 | 158 | 2,951 |
| NEW YORK | 0 | 0 | 0 | 0 | 0 | 0 |
| NORTH CAROLINA | 925 | 0 | 0 | 1,284 | 0 | 0 |
| NORTH DAKOTA | 704 | 383 | 269 | 0 | 0 | 0 |
| OHIO | 4,317 | 801 | 1,452 | 6,899 | 2,764 | 3,124 |
| OKLAHOMA | 2,616 | 5,344 | 357 | 1,972 | 8,846 | 865 |
| OREGON | 2,417 | 0 | 0 | 15,986 | 0 | 0 |
| PENNSYLVANIA | 3,487 | 3,165 | 503 | 5,441 | 1,359 | 2,093 |
| RHODE ISLAND | 282 | 44 | 0 | 21 | 0 | 0 |
| SOUTH CAROLINA | 2,473 | 0 | 17 | 5,595 | 0 | 56 |
| SOUTH DAKOTA | 123 | 0 | 69 | 298 | 0 | 302 |

TABLE F-16.-- NUMBER OF LEAVERS BY PROGRAM LEVEL AND PERCENT OF COMPLETION BY STATE:
UNITED STATES, OUTLYING AREAS 1978-79.

| STATE | PROGRAM LEVEL<br>COMPLETED MORE THAN 50 PERCENT<br>GRADES 11 & 12 | POST-SECONDARY | ADULT (LONG-TERM) | COMPLETED 50 PERCENT OR LESS<br>GRADES 11 & 12 | POST-SECONDARY | ADULT (LONG-TERM) |
|---|---|---|---|---|---|---|
| TENNESSEE | 3,678 | 2,301 | 488 | 3,199 | 5,025 | 4,693 |
| TEXAS | 4,144 | 0 | 0 | 2,455 | 0 | 0 |
| UTAH | 1,751 | 852 | 2 | 2,166 | 2,590 | 1 |
| VERMONT | 477 | 0 | 0 | 514 | 0 | 27 |
| VIRGINIA | 2,663 | 0 | 85 | 2,814 | 11 | 333 |
| WASHINGTON | 2,935 | 2,829 | 3 | 0 | 0 | 12,312 |
| WEST VIRGINIA | 2,136 | 2,199 | 331 | 2,867 | 4,326 | 562 |
| WISCONSIN | 569 | 0 | 0 | 433 | 0 | 0 |
| WYOMING | 769 | 131 | 34 | 686 | 73 | 75 |
| TOTAL U.S. | 150,005 | 45,363 | 24,823 | 97,970 | 63,328 | 60,129 |
| AMERICAN SAMOA | 0 | 0 | 0 | 0 | 0 | 0 |
| NORTHERN MARIANAS | 0 | 0 | 0 | 36 | 0 | 0 |
| GUAM | 28 | 0 | 1 | 16 | 110 | 178 |
| PUERTO RICO | 367 | 23 | 251 | 4 | 136 | 53 |
| TRUST TERRITORY | 55 | 17 | 0 | 0 | 1 | 0 |
| OUTLYING AREAS | 450 | 40 | 252 | 56 | 247 | 231 |
| U.S. AND OUTLYING AREAS | 150,455 | 45,403 | 25,075 | 98,026 | 63,575 | 60,360 |

TABLE E-17.--NUMBER OF PROGRAM LEAVERS BY INSTRUCTIONAL PROGRAM BY STATE: UNITED STATES, OUTLYING AREAS 1978-79.

| STATE | TOTAL | AGRI-CULTURE | DISTRI-BUTION | HEALTH | OCCUP. HOME ECON | OFFICE OCCUP. | TECH-NICAL | TRADE & INDUS | OTHER NEC |
|---|---|---|---|---|---|---|---|---|---|
| ALABAMA | 32,032 | 1,566 | 1,477 | 3,088 | 830 | 6,196 | 1,067 | 17,098 | 710 |
| ALASKA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ARIZONA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ARKANSAS | 6,436 | 1,234 | 355 | 345 | 98 | 1,370 | 2 | 3,032 | 0 |
| CALIFORNIA | 68,130 | 4,873 | 5,773 | 2,922 | 2,316 | 29,030 | 767 | 21,762 | 687 |
| COLORADO | 15,626 | 242 | 725 | 1,005 | 395 | 6,123 | 2,059 | 3,721 | 1,356 |
| CONNECTICUT | 3,381 | 54 | 115 | 238 | 114 | 1,207 | 87 | 1,566 | 0 |
| DELAWARE | 264 | 27 | 24 | 21 | 17 | 106 | 4 | 65 | 0 |
| DISTRICT OF COLUMBIA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| FLORIDA | 2,913 | 107 | 448 | 105 | 96 | 605 | 42 | 989 | 521 |
| GEORGIA | 18,136 | 57 | 685 | 1,696 | 450 | 3,802 | 1,395 | 6,884 | 3,167 |
| HAWAII | 4,206 | 70 | 658 | 180 | 0 | 1,311 | 131 | 1,856 | 0 |
| IDAHO | 3,231 | 422 | 365 | 100 | 64 | 1,195 | 64 | 965 | 56 |
| ILLINOIS | 25,618 | 1,054 | 1,864 | 2,039 | 2,607 | 8,009 | 1,523 | 7,950 | 572 |
| INDIANA | 2,087 | 301 | 66 | 22 | 157 | 41 | 0 | 1,500 | 0 |
| IOWA | 7,119 | 624 | 1,057 | 1,127 | 155 | 1,418 | 461 | 2,277 | 0 |
| KANSAS | 23,362 | 4,305 | 1,305 | 3,649 | 1,489 | 4,127 | 365 | 8,122 | 0 |
| KENTUCKY | 15,100 | 840 | 736 | 814 | 427 | 5,142 | 147 | 6,994 | 0 |
| LOUISIANA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MAINE | 2,008 | 140 | 229 | 128 | 66 | 101 | 197 | 1,120 | 27 |
| MARYLAND | 682 | 44 | 24 | 20 | 11 | 196 | 0 | 325 | 62 |
| MASSACHUSETTS | 1,957 | 216 | 147 | 259 | 75 | 0 | 175 | 1,046 | 39 |
| MICHIGAN | 24,714 | 901 | 3,174 | 2,094 | 1,595 | 6,209 | 2,040 | 8,452 | 249 |
| MINNESOTA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| MISSISSIPPI | 7,053 | 915 | 651 | 401 | 194 | 1,123 | 405 | 3,364 | 0 |
| MISSOURI | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NEBRASKA | 4,788 | 574 | 692 | 286 | 19 | 1,198 | 0 | 2,001 | 18 |
| NEVADA | 974 | 35 | 24 | 9 | 44 | 414 | 36 | 412 | 0 |
| NEW HAMPSHIRE | 1,592 | 95 | 185 | 109 | 148 | 285 | 74 | 648 | 48 |
| NEW JERSEY | 5,603 | 110 | 557 | 204 | 202 | 833 | 118 | 3,539 | 40 |
| NEW MEXICO | 5,518 | 263 | 736 | 242 | 171 | 2,040 | 207 | 1,783 | 76 |
| NEW YORK | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NORTH CAROLINA | 2,209 | 401 | 176 | 90 | 169 | 181 | 0 | 1,192 | 0 |
| NORTH DAKOTA | 1,356 | 177 | 68 | 61 | 39 | 264 | 98 | 649 | 0 |
| OHIO | 19,362 | 1,153 | 1,263 | 1,873 | 1,362 | 3,237 | 1,218 | 5,329 | 3,927 |
| OKLAHOMA | 19,414 | 611 | 1,154 | 1,990 | 935 | 5,296 | 4,247 | 5,158 | 23 |
| OREGON | 18,403 | 1,663 | 1,148 | 292 | 608 | 8,992 | 244 | 5,456 | 0 |
| PENNSYLVANIA | 16,108 | 701 | 1,329 | 1,175 | 837 | 3,973 | 985 | 5,564 | 1,544 |
| RHODE ISLAND | 347 | 4 | 28 | 23 | 6 | 111 | 14 | 161 | 0 |
| SOUTH CAROLINA | 8,141 | 719 | 863 | 272 | 276 | 3,521 | 0 | 2,490 | 0 |
| SOUTH DAKOTA | 812 | 137 | 57 | 102 | 24 | 64 | 0 | 338 | 90 |
| TENNESSEE | 18,784 | 471 | 986 | 1,427 | 1,051 | 5,528 | 2,624 | 6,613 | 84 |
| TEXAS | 6,599 | 755 | 1,245 | 191 | 940 | 672 | 6 | 2,790 | 0 |

TABLE E-17.--NUMBER OF PROGRAM LEAVERS BY INSTRUCTIONAL PROGRAM BY STATE:
UNITED STATES, OUTLYING AREAS 1978-79.

| STATE | TOTAL | AGRI-CULTURE | DISTRI-BUTION | HEALTH | OCCUP. HOME ECON | OFFICE OCCUP. | TECH-NICAL | TRADE & INDUS | OTHER NEC |
|---|---|---|---|---|---|---|---|---|---|
| UTAH | 7,362 | 146 | 656 | 296 | 294 | 2,701 | 74 | 3,103 | 92 |
| VERMONT | 1,018 | 114 | 8 | 48 | 42 | 409 | 0 | 381 | 16 |
| VIRGINIA | 5,906 | 512 | 455 | 314 | 342 | 1,809 | 0 | 2,425 | 49 |
| WASHINGTON | 18,076 | 889 | 1,159 | 437 | 1,876 | 3,758 | 1,142 | 8,701 | 114 |
| WEST VIRGINIA | 12,421 | 380 | 619 | 1,245 | 454 | 4,816 | 1,540 | 2,465 | 902 |
| WISCONSIN | 1,002 | 145 | 55 | 0 | 79 | 112 | 0 | 151 | 460 |
| WYOMING | 1,768 | 340 | 579 | 235 | 0 | 410 | 62 | 142 | 0 |
| TOTAL U.S. | 441,618 | 28,387 | 33,920 | 31,214 | 21,074 | 127,935 | 23,620 | 160,579 | 14,889 |
| AMERICAN SAMOA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NORTHERN MARIANAS | 36 | 3 | 0 | 0 | 0 | 16 | 0 | 17 | 0 |
| GUAM | 333 | 3 | 5 | 0 | 0 | 120 | 107 | 93 | 5 |
| PUERTO RICO | 834 | 12 | 306 | 45 | 0 | 223 | 159 | 89 | 0 |
| TRUST TERRITORY | 73 | 10 | 0 | 0 | 0 | 2 | 0 | 55 | 6 |
| OUTLYING AREAS | 1,276 | 28 | 311 | 45 | 0 | 361 | 266 | 254 | 11 |
| U.S. & OUTLYING AREAS | 442,894 | 28,415 | 34,231 | 31,259 | 21,074 | 128,296 | 23,886 | 160,833 | 14,900 |

## TABLE E-18.-- NUMBER OF LEAVERS BY PROGRAM LEVEL AND PERCENT OF COMPLETION BY INSTRUCTIONAL PROGRAM: UNITED STATES, OUTLYING AREAS 1978-79.

| PROGRAM | PROGRAM LEVEL: COMPLETED MORE THAN 50 PERCENT: GRADES 11 & 12 | POST-SECONDARY | ADULT (LONG-TERM) | COMPLETED 50 PERCENT OR LESS: GRADES 11 & 12 | POST-SECONDARY | ADULT (LONG-TERM) |
|---|---|---|---|---|---|---|
| AGRICULTURAL PRODUCTION | 7,719 | 519 | 203 | 2,454 | 439 | 238 |
| AGRICULTURAL SUPPLIES/SERVICES | 663 | 506 | 43 | 360 | 90 | 27 |
| AGRICULTURAL MECHANICS | 2,747 | 93 | 67 | 1,414 | 72 | 61 |
| AGRICULTURAL PRODUCTS | 130 | 7 | 37 | 243 | 9 | 19 |
| HORTICULTURE | 3,410 | 282 | 143 | 2,437 | 250 | 362 |
| RENEWABLE NATURAL RESOURCES | 368 | 117 | 24 | 135 | 173 | 3 |
| FORESTRY | 341 | 114 | 35 | 239 | 106 | 31 |
| OTHER AGRICULTURE | 855 | 34 | 17 | 207 | 59 | 13 |
| ADVERTISING SERVICES | 88 | 21 | 2 | 118 | 46 | 36 |
| APPAREL & ACCESSORIES | 551 | 137 | 33 | 292 | 218 | 229 |
| AUTOMOTIVE | 193 | 41 | 34 | 213 | 16 | 45 |
| FINANCE & CREDIT | 129 | 228 | 24 | 133 | 1,231 | 156 |
| FLORISTRY | 150 | 0 | 23 | 32 | 0 | 13 |
| FOOD DISTRIBUTION | 1,340 | 36 | 56 | 566 | 11 | 78 |
| FOOD SERVICES | 921 | 130 | 35 | 985 | 71 | 118 |
| GENERAL MERCHANDISE | 8,149 | 1,226 | 316 | 4,285 | 935 | 615 |
| HARDWARE, BUILDING MATERIALS, ETC. | 108 | 0 | 0 | 80 | 0 | 7 |
| HOME FURNISHINGS | 83 | 67 | 4 | 42 | 75 | 23 |
| HOTEL & LODGING | 200 | 378 | 17 | 75 | 189 | 24 |
| INDUSTRIAL MARKETING | 48 | 29 | 12 | 72 | 40 | 100 |
| INSURANCE | 336 | 73 | 2 | 26 | 24 | 13 |
| PERSONAL SERVICES | 105 | 9 | 3 | 153 | 15 | 15 |
| REAL ESTATE | 363 | 669 | 168 | 21 | 482 | 233 |
| RECREATION & TOURISM | 190 | 60 | 4 | 101 | 33 | 19 |
| TRANSPORTATION | 351 | 160 | 13 | 82 | 137 | 5 |
| OTHER RETAIL TRADES | 502 | 97 | 6 | 526 | 75 | 116 |
| OTHER DISTRIBUTIVE EDUCATION | 783 | 358 | 25 | 1,507 | 361 | 28 |
| DENTAL ASSISTING | 444 | 99 | 143 | 148 | 147 | 290 |
| DENTAL HYGIENE(ASSOCIATE DEGREE) | 0 | 199 | 3 | 1 | 78 | 0 |
| DENTAL LABORATORY TECHNOLOGY | 11 | 33 | 6 | 13 | 132 | 79 |
| MEDICAL LABORATORY ASSISTING | 127 | 326 | 14 | 64 | 594 | 38 |
| OTHER MEDICAL LABORATORY TECHNOLOGY | 16 | 148 | 8 | 6 | 315 | 18 |
| NURSING(ASSOCIATE DEGREE) | 53 | 2,937 | 135 | 17 | 2,279 | 28 |
| PRACTICAL(VOCATIONAL)NURSING | 183 | 429 | 1,606 | 151 | 1,462 | 3,277 |
| NURSING ASSISTANCE(AIDE) | 2,491 | 8 | 604 | 1,078 | 29 | 586 |
| OTHER NURSING | 177 | 133 | 191 | 30 | 30 | 188 |
| REHABILITATION | 59 | 58 | 0 | 9 | 83 | 13 |
| RADIOLOGIC TECHNOLOGY(X-RAY) | 1 | 336 | 2 | 1 | 312 | 29 |
| MENTAL HEALTH TECHNOLOGY | 20 | 413 | 6 | 3 | 422 | 1 |
| INHALATION THERAPY | 53 | 240 | 50 | 3 | 273 | 101 |
| MEDICAL ASSISTANT | 347 | 109 | 62 | 195 | 234 | 209 |

TABLE F-18.-- NUMBER OF LEAVERS BY PROGRAM LEVEL AND PERCENT OF COMPLETION BY INSTRUCTIONAL PROGRAM
UNITED STATES, OUTLYING AREAS 1978-79.

| | PROGRAM LEVEL | | | | | |
|---|---|---|---|---|---|---|
| | COMPLETED MORE THAN 50 PERCENT | | | COMPLETED 50 PERCENT OR LESS | | |
| PROGRAM | GRADES 11 & 12 | POST-SECONDARY | ADULT (LONG-TERM) | GRADES 11 & 12 | POST-SECONDARY | ADULT (LONG-TERM) |
| COMMUNITY HEALTH AIDE | 175 | 16 | 3 | 190 | 36 | 20 |
| MEDICAL EMERGENCY TECHNICIAN | 159 | 307 | 229 | 8 | 305 | 128 |
| OTHER HEALTH OCCUPATIONS EDUCATION | 1,875 | 530 | 273 | 1,205 | 309 | 207 |
| CARE & GUIDANCE OF CHILDREN | 2,855 | 1,088 | 258 | 2,380 | 1,084 | 2,037 |
| CLOTHING MGT., PRODUCTION, & SERVICES | 990 | 12 | 90 | 817 | 32 | 97 |
| FOOD MGT., PRODUCTION, & SERVICES | 3,129 | 345 | 293 | 2,912 | 392 | 396 |
| HOME FURN., EQUIPMENT, & SERVICES | 185 | 53 | 48 | 86 | 26 | 44 |
| INSTITUTIONAL & HOME MGT. & SUP. | 231 | 49 | 24 | 265 | 45 | 14 |
| OTHER OCCUP. PREP. FOR HOMEMAKING | 357 | 62 | 33 | 373 | 277 | 73 |
| ACCOUNTING & COMPUTING OCCUPATIONS | 8,249 | 3,495 | 689 | 8,212 | 4,883 | 2,203 |
| COMPUTER & CONSOLE OPERATORS | 329 | 404 | 168 | 344 | 807 | 165 |
| PROGRAMMERS | 845 | 1,093 | 69 | 785 | 2,059 | 319 |
| OTHER BUSINESS DATA PROCESSING | 1,892 | 887 | 316 | 512 | 562 | 788 |
| FILING, OFFICE MACHINES, & GEN. OFF. | 13,053 | 1,691 | 934 | 9,816 | 2,190 | 2,367 |
| INFORMATION, COMMUNICATION OCCUP. | 509 | 65 | 5 | 857 | 67 | 25 |
| MATERIALS SUPPORT OCCUPATIONS | 99 | 3 | 1 | 217 | 9 | 30 |
| PERSONNEL, TRAINING, & RELATED | 656 | 455 | 18 | 54 | 571 | 15 |
| STENOGRAPHIC, SECRETARIAL, & RELATED | 11,303 | 3,331 | 2,147 | 7,569 | 5,826 | 4,042 |
| SUPERVISORY & ADMINISTRATIVE MGT. | 186 | 2,096 | 155 | 102 | 2,446 | 359 |
| TYPING & RELATED OCCUPATIONS | 9,625 | 195 | 441 | 2,963 | 510 | 1,767 |
| OTHER OFFICE OCCUPATIONS | 1,495 | 188 | 63 | 404 | 459 | 232 |
| ARCHITECTURAL TECHNOLOGY | 42 | 429 | 27 | 16 | 840 | 288 |
| AUTOMOTIVE TECHNOLOGY | 13 | 561 | 47 | 10 | 654 | 46 |
| CIVIL TECHNOLOGY | 25 | 608 | 54 | 80 | 535 | 206 |
| ELECTRICAL TECHNOLOGY | 32 | 299 | 33 | 174 | 768 | 89 |
| ELECTRONIC TECHNOLOGY | 264 | 1,682 | 281 | 189 | 3,047 | 1,103 |
| ENVIRONMENTAL-CONTROL TECHNOLOGY | 9 | 589 | 23 | 5 | 747 | 55 |
| INDUSTRIAL TECHNOLOGY | 1 | 182 | 11 | 0 | 391 | 48 |
| MECHANICAL TECHNOLOGY | 37 | 565 | 39 | 22 | 1,276 | 282 |
| SCIENTIFIC DATA PROCESSING | 153 | 26 | 9 | 72 | 52 | 189 |
| COMMERCIAL PILOT TRAINING | 0 | 28 | 10 | 0 | 21 | 41 |
| FIRE & FIRE SAFETY TECHNOLOGY | 116 | 291 | 28 | 0 | 291 | 224 |
| POLICE SCIENCE TECHNOLOGY | 138 | 1,111 | 57 | 4 | 1,364 | 95 |
| OTHER TECHNICAL EDUCATION | 90 | 818 | 136 | 26 | 1,061 | 222 |
| WATER & WASTE WATER TECHNOLOGY | 82 | 137 | 19 | 0 | 220 | 133 |
| AIR CONDITIONING | 770 | 213 | 533 | 842 | 835 | 1,442 |
| APPLIANCE REPAIR | 485 | 25 | 84 | 357 | 75 | 337 |
| BODY & FENDER REPAIR | 2,892 | 312 | 508 | 2,064 | 567 | 1,428 |
| AUTO MECHANICS | 7,571 | 980 | 1,603 | 6,603 | 1,862 | 4,052 |
| AUTOMOTIVE SPECIALIZATION | 2,370 | 95 | 93 | 539 | 53 | 79 |
| AVIATION OCCUPATIONS | 311 | 126 | 261 | 158 | 220 | 1,199 |

TABLE 1-19.-- NUMBER OF LEAVERS BY PROGRAM LEVEL AND PERCENT OF COMPLETION OF INSTRUCTIONAL PROGRAMS
UNITED STATES, OUTLYING AREAS 1978-79.

| PROGRAM | PROGRAM LEVEL<br>COMPLETED MORE THAN 50 PERCENT<br>GRADES 11 & 12 | <br><br>POST-SECONDARY | <br><br>ADULT (LONG-TERM) | <br>COMPLETED 50 PERCENT OR LESS<br>GRADES 11 & 12 | <br><br>POST-SECONDARY | <br><br>ADULT (LONG-TERM) |
|---|---|---|---|---|---|---|
| COMMERCIAL ART OCCUPATIONS | 730 | 410 | 97 | 888 | 728 | 299 |
| COMMERCIAL PHOTOGRAPHY OCCUP. | 523 | 106 | 69 | 117 | 228 | 48 |
| CARPENTRY | 3,105 | 423 | 762 | 3,964 | 551 | 1,718 |
| ELECTRICITY | 553 | 121 | 386 | 919 | 229 | 714 |
| MASONRY | 857 | 68 | 283 | 919 | 279 | 718 |
| PLUMBING & PIPEFITTING | 192 | 31 | 271 | 355 | 45 | 545 |
| OTHER CONSTRUCTION & MAINTENANCE | 2,525 | 150 | 392 | 2,497 | 253 | 951 |
| CUSTODIAL SERVICES | 387 | 20 | 85 | 282 | 0 | 980 |
| DIESEL MECHANIC | 386 | 457 | 329 | 407 | 672 | 843 |
| DRAFTING OCCUPATIONS | 2,186 | 725 | 593 | 1,901 | 1,032 | 1,689 |
| ELECTRICAL OCCUPATIONS | 669 | 85 | 481 | 790 | 220 | 1,405 |
| ELECTRONICS OCCUPATIONS | 2,507 | 479 | 490 | 1,469 | 1,218 | 1,669 |
| FOREMANSHIP, SUPER., & MGT. DEVEL. | 16 | 193 | 82 | 8 | 326 | 22 |
| GRAPHIC ARTS OCCUPATIONS | 2,565 | 206 | 282 | 1,610 | 381 | 562 |
| INSTRUMENT MAINTENANCE & REPAIR | 58 | 7 | 28 | 47 | 6 | 75 |
| MARITIME OCCUPATIONS | 29 | 7 | 53 | 30 | 0 | 133 |
| MACHINE SHOP | 1,893 | 400 | 768 | 1,613 | 970 | 2,227 |
| MACHINE TOOL OCCUPATION | 199 | 9 | 73 | 241 | 17 | 209 |
| SHEET METAL | 218 | 16 | 121 | 223 | 70 | 180 |
| WELDING & CUTTING | 3,066 | 834 | 1,692 | 2,698 | 1,236 | 4,498 |
| TOOL & DIE MAKING | 37 | 7 | 144 | 51 | 0 | 161 |
| OTHER METALWORKING OCCUPATIONS | 1,026 | 9 | 41 | 618 | 9 | 124 |
| METALLURGY OCCUPATIONS | 34 | 4 | 1 | 1 | 6 | 0 |
| COSMETOLOGY | 3,484 | 255 | 619 | 1,657 | 878 | 1,549 |
| OTHER PERSONAL SERVICES | 118 | 18 | 21 | 27 | 26 | 34 |
| PLASTICS OCCUPATIONS | 235 | 1 | 16 | 51 | 2 | 71 |
| FIREMAN TRAINING | 496 | 327 | 19 | 26 | 65 | 78 |
| LAW ENFORCEMENT TRAINING | 522 | 1,557 | 21 | 150 | 673 | 60 |
| OTHER PUBLIC SERVICE OCCUPATIONS | 541 | 420 | 37 | 94 | 212 | 20 |
| QUANTITY FOOD OCCUPATIONS | 1,776 | 225 | 278 | 1,026 | 101 | 629 |
| REFRIGERATION | 75 | 34 | 26 | 80 | 41 | 25 |
| SMALL ENGINE REPAIR | 1,195 | 83 | 254 | 700 | 83 | 448 |
| STATIONARY ENERGY SOURCES OCCUP. | 35 | 0 | 0 | 116 | 0 | 42 |
| TEXTILE PRODUCTION & FABRICATION | 473 | 118 | 75 | 502 | 88 | 248 |
| UPHOLSTERING | 289 | 49 | 140 | 182 | 41 | 449 |
| WOODWORKING OCCUPATIONS | 1,017 | 168 | 84 | 648 | 151 | 127 |
| OTHER TRADE & INDUSTRIAL OCCUPATIONS | 2,866 | 259 | 1,059 | 1,750 | 292 | 1,612 |
| OTHER PROGRAMS,GREATER THAN 1% OF TOTAL | 3,659 | 891 | 674 | 4,656 | 2,153 | 598 |
| OTHER PROGRAMS,LESS THAN 1% OF TOTAL | 542 | 164 | 2 | 32 | 1,218 | 301 |
| TOTAL | 15[illegible],955 | 45,493 | 25,075 | 98,026 | 63,575 | 60,360 |

### TABLE E-19.--NUMBER OF FEMALE ENROLLES AND PERCENT OF TOTAL ENROLLMENT BY INSTRUCTIONAL PROGRAM
### UNITED STATES, OUTLYING AREAS 1978-79

| PROGRAM | TOTAL ENROLLMENT | FEMALES | FEMALES AS A PERCENT OF TOTAL |
|---|---|---|---|
| AGRICULTURE | 763,697 | 146,303 | 19.16 |
| DISTRIBUTION | 644,177 | 345,066 | 53.57 |
| HEALTH OCCUPATIONS | 436,249 | 367,758 | 84.30 |
| PREP. FOR OCCUP. OF HOMEMAKING | 2,838,420 | 2,254,063 | 79.41 |
| OCCUPATIONAL HOME ECONOMICS | 445,979 | 347,287 | 77.87 |
| OFFICE OCCUPATIONS | 2,887,981 | 2,121,342 | 73.45 |
| TECHNICAL | 374,426 | 72,684 | 19.41 |
| TRADE & INDUSTRIAL OCCUPATIONS | 2,253,715 | 393,864 | 17.48 |
| INDUSTRIAL ARTS | 1,665,311 | 248,851 | 14.94 |
| OTHER NEC | 918,594 | 422,351 | 45.98 |
| TOTAL | 13,228,549 | 6,719,569 | 50.80 |

TABLE E-20.--NUMBER OF STUDENTS BENEFITTING FROM VOCATIONAL EDUCATION PROGRAMS BY SPECIFIC CONDITIONS BY STATE: UNITED STATES, OUTLYING AREAS 1978-79.

| STATE | HANDICAPPED | DISADVANTAGED | LIMITED ENGLISH SPEAKING | WORK STUDY | SPECIAL DISADVANTAGED | ECON DEPRESSED AREAS |
|---|---|---|---|---|---|---|
| ALABAMA | 3,881 | 39,089 | 4 | 374 | 576 | 48,906 |
| ALASKA | 45 | 8,697 | 68 | 0 | 26 | 9 |
| ARIZONA | 2,725 | 4,880 | 305 | 355 | 1,374 | 8,235 |
| ARKANSAS | 4,125 | 18,688 | 62 | 0 | 4,095 | 38,677 |
| CALIFORNIA | 24,689 | 155,387 | 15,966 | 4,385 | 34,191 | 146,892 |
| COLORADO | 2,097 | 5,865 | 218 | 225 | 119 | 3,926 |
| CONNECTICUT | 3,673 | 13,143 | 0 | 374 | 617 | 28,505 |
| DELAWARE | 1,011 | 1,639 | 15 | 58 | 367 | 1,182 |
| DISTRICT OF COLUMBIA | 514 | 1,150 | 83 | 20 | 637 | 7,360 |
| FLORIDA | 6,828 | 30,155 | 1,045 | 1,009 | 12,465 | 23,498 |
| GEORGIA | 3,962 | 16,145 | 0 | 0 | 0 | 37,945 |
| HAWAII | 2,152 | 16,262 | 201 | 581 | 444 | 10,418 |
| IDAHO | 403 | 1,566 | 15 | 112 | 145 | 7,283 |
| ILLINOIS | 27,561 | 115,357 | 2,472 | 1,925 | 2,185 | 26,821 |
| INDIANA | 4,420 | 5,478 | 84 | 689 | 3,841 | 27,882 |
| IOWA | 3,285 | 19,866 | 134 | 0 | 1,250 | 31,149 |
| KANSAS | 2,121 | 3,904 | 23 | 19 | 2,302 | 5,993 |
| KENTUCKY | 6,332 | 24,763 | 38 | 966 | 2,553 | 53,060 |
| LOUISIANA | 4,870 | 67,300 | 0 | 414 | 7,629 | 24,890 |
| MAINE | 325 | 1,957 | 0 | 147 | 119 | 7,630 |
| MARYLAND | 5,020 | 11,572 | 27 | 382 | 3,246 | 48,296 |
| MASSACHUSETTS | 3,874 | 8,679 | 501 | 0 | 741 | 28,243 |
| MICHIGAN | 4,077 | 11,877 | 258 | 0 | 1,399 | 4,309 |
| MINNESOTA | 5,741 | 8,553 | 225 | 0 | 2,074 | 16,811 |
| MISSISSIPPI | 3,079 | 7,957 | 0 | 0 | 1,304 | 2,372 |
| MISSOURI | 8,976 | 7,884 | 142 | 363 | 2,139 | 47,032 |
| NEBRASKA | 1,343 | 5,293 | 58 | 141 | 158 | 11,003 |
| NEVADA | 781 | 1,354 | 35 | 65 | 786 | 800 |
| NEW HAMPSHIRE | 498 | 1,113 | 0 | 0 | 864 | 5,391 |
| NEW JERSEY | 2,517 | 12,216 | 0 | 4,663 | 8,681 | 23,252 |
| NEW MEXICO | 1,142 | 6,917 | 1,660 | 0 | 186 | 10,972 |
| NEW YORK | 13,086 | 73,433 | 5,473 | 2,388 | 9,100 | 122,111 |
| NORTH CAROLINA | 10,065 | 40,559 | 1,982 | 1,119 | 3,296 | 19,886 |
| NORTH DAKOTA | 398 | 3,098 | 18 | 150 | 112 | 4,242 |
| OHIO | 9,004 | 34,362 | 92 | 1,053 | 1,436 | 104,454 |
| OKLAHOMA | 3,014 | 5,358 | 1 | 332 | 2,598 | 29,696 |
| OREGON | 2,723 | 10,472 | 141 | 18 | 898 | 3,270 |
| PENNSYLVANIA | 8,832 | 14,071 | 143 | 516 | 3,662 | 93,644 |
| RHODE ISLAND | 1,782 | 4,618 | 30 | 116 | 122 | 1,789 |
| SOUTH CAROLINA | 3,955 | 15,184 | 0 | 251 | 701 | 35,503 |
| SOUTH DAKOTA | 234 | 1,629 | 0 | 88 | 65 | 1,872 |
| TENNESSEE | 4,838 | 19,187 | 631 | 904 | 1,925 | 44,499 |
| TEXAS | 7,878 | 34,358 | 794 | 1,151 | 1,467 | 143,393 |

TABLE E-20.--NUMBER OF STUDENTS BENEFITTING FROM VOCATIONAL EDUCATION PROGRAMS BY SPECIFIC CONDITIONS BY STATE: UNITED STATES, OUTLYING AREAS 1978-79.

| STATE | HANDICAPPED | DISADVANTAGED | LIMITED ENGLISH SPEAKING | WORK STUDY | SPECIAL DISADVANTAGED | ECON DEPRESSED AREAS |
|---|---|---|---|---|---|---|
| UTAH | 1,626 | 3,898 | 602 | 0 | 3,857 | 5,679 |
| VERMONT | 530 | 1,740 | 96 | 0 | 18 | 2,303 |
| VIRGINIA | 9,107 | 18,737 | 515 | 1,002 | 1,808 | 24,878 |
| WASHINGTON | 6,810 | 25,133 | 93 | 219 | 1,708 | 16,058 |
| WEST VIRGINIA | 2,533 | 7,310 | 19 | 336 | 824 | 16,782 |
| WISCONSIN | 5,651 | 24,360 | 7,321 | 722 | 5,718 | 18,561 |
| WYOMING | 208 | 625 | 0 | 0 | 976 | 2,382 |
| TOTAL U.S. | 234,341 | 972,438 | 41,590 | 27,632 | 136,804 | 1,429,744 |
| AMERICAN SAMOA | 16 | 1,957 | 1,435 | 35 | 38 | 513 |
| GUAM | 58 | 0 | 440 | 101 | 356 | 954 |
| PUERTO RICO | 1,573 | 24,570 | 642 | 216 | 15,772 | 20,518 |
| OUTLYING AREAS | 1,647 | 26,527 | 2,517 | 352 | 16,166 | 21,985 |
| U.S. & OUTLYING AREAS | 235,988 | 998,965 | 44,107 | 27,984 | 152,970 | 1,451,729 |

## APPENDIX 2. Funding Tables

F- 1. Federal Authorization of Funds (VEA) by Legislative Section by State
F- 2. Federal and State/Local (VEA) Expenditures (Including Carryover) by Legislative Section by State
F- 3. Vocational Education (VEA) Expenditures (Including Unliquidated Obligations) by Source of Funds by State
F- 4. Vocational Education (VEA) Section 120 Expenditures (Including Unliquidated Obligations) by Source of Funds by State
F- 5. Vocational Education (VEA) Section 130 Expenditures (Including Unliquidated Obligations) by Source of Funds by State
F- 6. Vocational Education (VEA) Section 140 Expenditures (Including Unliquidated Obligations) by Source of Funds by State
F- 7. Vocational Education (VEA) Section 150 Expenditures (Including Unliquidated Obligations) by Source of Funds by State
F- 8. Outlays by Authorization Year and Source of Funds by Section 110 Programs
F- 9. Outlays for Programs for Handicapped Enrollees Under Section 110 (Including Carryover) by Source of Funds, Percent, Ratio, and by State
F-10. Outlays for Programs for Disadvantaged Enrollees Under Section 110 (Including Carryover) by Source of Funds, Percent, Ratio, and by State
F-11. Outlays for Programs for Enrollees with Limited English Proficiency Under Section 110 (Including Carryover) by Source of Funds, Percent, Ratio, and by State
F-12. Outlays for Adult and Postsecondary Education Under Section 110 (Including Carryover) by Source of Funds, Percent, Ratio, and by State

## TABLE F-1.-- ALLOCATION OF FEDERAL (VEA) FUNDS BY LEGISLATIVE SECTION BY STATE: UNITED STATES, OUTLYING AREAS FISCAL YEAR 1979.

| STATE | TOTAL | BASIC GRANTS (SEC 120) | PROGRAM IMPROVEMENT (SEC 130) | DISADVANTAGED (SEC 140) | CONSUMER AND HOMEMAKING (SEC 150) | STATE ADVISORY COUNCILS (SEC 105) |
|---|---|---|---|---|---|---|
| ALABAMA | 12,122,355 | 8,657,073 | 2,164,268 | 401,392 | 822,734 | 76,888 |
| ALASKA | 1,135,111 | 761,901 | 190,476 | 35,326 | 72,408 | 75,000 |
| ARIZONA | 6,759,043 | 4,803,819 | 1,200,955 | 222,733 | 456,536 | 75,000 |
| ARKANSAS | 6,686,580 | 4,751,740 | 1,187,935 | 220,318 | 451,587 | 75,000 |
| CALIFORNIA | 52,371,540 | 37,531,105 | 9,382,776 | 1,740,161 | 3,566,809 | 150,689 |
| COLORADO | 7,500,859 | 5,336,962 | 1,334,240 | 247,453 | 507,204 | 75,000 |
| CONNECTICUT | 7,045,393 | 5,006,794 | 1,251,698 | 232,144 | 475,826 | 78,931 |
| DELAWARE | 1,513,507 | 1,087,757 | 271,939 | 50,435 | 103,376 | 0 |
| DISTRICT OF COLUMBIA | 1,801,881 | 1,241,109 | 310,277 | 57,545 | 117,950 | 75,000 |
| FLORIDA | 21,803,320 | 15,670,037 | 3,917,509 | 726,555 | 1,489,219 | 0 |
| GEORGIA | 15,663,906 | 11,257,643 | 2,814,411 | 521,970 | 1,069,882 | 0 |
| HAWAII | 2,375,471 | 1,653,347 | 413,337 | 76,659 | 157,128 | 75,000 |
| IDAHO | 2,656,718 | 1,855,479 | 463,870 | 86,032 | 176,337 | 75,000 |
| ILLINOIS | 25,992,754 | 18,572,682 | 4,643,170 | 861,138 | 1,765,075 | 150,689 |
| INDIANA | 15,276,676 | 10,909,702 | 2,727,426 | 505,838 | 1,036,815 | 96,895 |
| IOWA | 7,982,000 | 5,682,758 | 1,420,690 | 263,485 | 540,067 | 75,000 |
| KANSAS | 6,375,820 | 4,528,397 | 1,132,099 | 209,963 | 430,361 | 75,000 |
| KENTUCKY | 11,035,265 | 7,877,138 | 1,969,285 | 365,230 | 748,612 | 75,000 |
| LOUISIANA | 13,034,471 | 9,308,453 | 2,327,113 | 431,594 | 884,639 | 82,672 |
| MAINE | 3,462,373 | 2,434,504 | 608,626 | 112,877 | 231,366 | 75,000 |
| MARYLAND | 10,777,065 | 7,691,570 | 1,922,893 | 356,625 | 730,977 | 75,000 |
| MASSACHUSETTS | 15,406,227 | 10,998,255 | 2,749,564 | 509,943 | 1,045,231 | 103,234 |
| MICHIGAN | 24,832,888 | 17,739,086 | 4,434,771 | 822,488 | 1,685,854 | 150,689 |
| MINNESOTA | 11,486,090 | 8,201,160 | 2,050,270 | 380,254 | 779,406 | 75,000 |
| MISSISSIPPI | 7,988,544 | 5,687,461 | 1,421,865 | 263,704 | 540,514 | 75,000 |
| MISSOURI | 13,953,638 | 9,964,866 | 2,491,217 | 462,029 | 947,022 | 88,504 |
| MONTANA | 2,425,715 | 1,689,458 | 422,364 | 78,334 | 160,559 | 75,000 |
| NEBRASKA | 4,503,736 | 3,182,931 | 795,733 | 147,579 | 302,493 | 75,000 |
| NEVADA | 1,541,957 | 1,054,695 | 263,674 | 48,902 | 100,234 | 74,452 |
| NEW HAMPSHIRE | 2,421,360 | 1,685,940 | 421,485 | 78,710 | 160,225 | 75,000 |
| NEW JERSEY | 16,122,899 | 11,587,521 | 2,896,880 | 537,266 | 1,101,232 | 0 |
| NEW MEXICO | 4,178,869 | 2,949,449 | 737,362 | 136,754 | 280,304 | 75,000 |
| NEW YORK | 41,878,037 | 29,983,747 | 7,495,937 | 1,390,221 | 2,849,537 | 158,595 |
| NORTH CAROLINA | 17,585,432 | 12,558,480 | 3,139,620 | 582,284 | 1,193,509 | 111,539 |
| NORTH DAKOTA | 2,291,295 | 1,592,850 | 398,213 | 73,854 | 151,378 | 75,000 |
| OHIO | 29,753,463 | 21,275,502 | 5,318,876 | 986,456 | 2,021,940 | 150,689 |
| OKLAHOMA | 8,298,541 | 5,910,256 | 1,477,564 | 274,033 | 561,688 | 75,000 |
| OREGON | 6,448,847 | 4,580,881 | 1,145,220 | 212,397 | 435,349 | 75,000 |
| PENNSYLVANIA | 31,120,131 | 22,366,026 | 5,591,506 | 1,037,020 | 2,125,579 | 0 |
| RHODE ISLAND | 2,712,326 | 1,895,445 | 473,861 | 87,884 | 180,136 | 75,000 |
| SOUTH CAROLINA | 9,872,005 | 7,041,103 | 1,760,276 | 326,467 | 669,159 | 75,000 |
| SOUTH DAKOTA | 2,430,744 | 1,693,072 | 423,268 | 78,501 | 160,903 | 75,000 |
| TENNESSEE | 13,316,834 | 9,510,098 | 2,377,524 | 440,944 | 903,802 | 84,466 |

## TABLE F-1.-- ALLOCATION OF FEDERAL (VEA) FUNDS BY LEGISLATIVE SECTION BY STATE: UNITED STATES, OUTLYING AREAS FISCAL YEAR 1979.

| STATE | TOTAL | BASIC GRANTS (SEC 120) | PROGRAM IMPROVEMENT (SEC 130) | DISADVANTAGED (SEC 140) | CONSUMER AND HOMEMAKING (SEC 150) | STATE ADVISORY COUNCILS (SEC 105) |
|---|---|---|---|---|---|---|
| TEXAS | 36,856,599 | 26,380,523 | 6,595,131 | 1,223,155 | 2,507,101 | 150,689 |
| UTAH | 4,307,762 | 3,042,085 | 760,521 | 141,048 | 289,108 | 75,000 |
| VERMONT | 1,695,075 | 1,164,347 | 291,087 | 53,986 | 110,655 | 75,000 |
| VIRGINIA | 14,795,736 | 10,566,243 | 2,641,561 | 489,913 | 1,004,174 | 93,845 |
| WASHINGTON | 9,509,535 | 6,780,596 | 1,695,149 | 314,389 | 644,401 | 75,000 |
| WEST VIRGINIA | 5,581,216 | 3,957,315 | 989,329 | 183,484 | 376,088 | 75,000 |
| WISCONSIN | 13,654,493 | 9,751,236 | 2,437,808 | 452,125 | 926,719 | 86,605 |
| WYOMING | 1,299,783 | 880,251 | 220,063 | 40,813 | 83,656 | 75,000 |
| TOTAL U.S. | $591,641,885 | $422,290,848 | $105,572,692 | $19,580,410 | $40,132,864 | $4,065,071 |
| AMERICAN SAMOA | 275,000 | 143,740 | 35,935 | 6,665 | 13,660 | 75,000 |
| GUAM | 404,918 | 237,112 | 59,278 | 10,994 | 22,534 | 75,000 |
| PUERTO RICO | 10,287,297 | 7,393,476 | 1,848,369 | 342,805 | 702,647 | 0 |
| VIRGIN ISLANDS | 308,121 | 167,544 | 41,886 | 7,768 | 15,923 | 75,000 |
| TRUST TERRITORY | 401,960 | 234,986 | 58,746 | 10,896 | 22,332 | 75,000 |
| OUTLYING AREAS | $11,677,296 | $8,176,858 | $2,044,214 | $379,128 | $777,096 | $300,000 |
| U.S. AND OUTLYING AREAS | $603,319,181 | $430,467,706 | $107,616,906 | $19,959,538 | $40,909,960 | $4,365,071 |

## TABLE F-2.-- FEDERAL AND STATE/LOCAL (VEA) EXPENDITURES (INCLUDING CARRYOVER AND UNLIQUIDATED OBLIGATIONS) BY LEGISLATIVE SECTION BY STATE: UNITED STATES, OUTLYING AREAS FISCAL YEAR 1979.

| STATE | TOTAL | BASIC GRANTS (SEC 120) | PROGRAM IMPROVEMENT (SEC 130) | DISADVANTAGED (SEC 140) | CONSUMER AND HOMEMAKING (SEC 150) | STATE ADVISORY COUNCILS (SEC 105) |
|---|---|---|---|---|---|---|
| ALABAMA | 73,920,055 | 61,379,242 | 5,330,823 | 402,499 | 6,729,668 | 77,823 |
| ALASKA | 13,154,131 | 12,234,831 | 329,035 | 69,247 | 427,426 | 93,592 |
| ARIZONA | 40,622,425 | 33,440,557 | 2,062,499 | 189,761 | 4,874,317 | 55,291 |
| ARKANSAS | 38,362,190 | 28,371,635 | 4,805,142 | 155,637 | 4,955,497 | 74,279 |
| CALIFORNIA | 987,199,491 | 856,883,893 | 52,546,968 | 3,164,646 | 74,355,310 | 248,674 |
| COLORADO | 74,171,134 | 64,706,847 | 3,872,993 | 336,614 | 5,183,494 | 71,186 |
| CONNECTICUT | 67,357,661 | 57,922,221 | 2,429,668 | 453,419 | 6,468,164 | 84,189 |
| DELAWARE | 34,764,877 | 31,687,637 | 1,304,238 | 116,294 | 1,656,708 | 0 |
| DISTRICT OF COLUMBIA | 6,168,626 | 5,256,876 | 344,885 | 62,165 | 440,921 | 63,779 |
| FLORIDA | 412,055,451 | 367,576,588 | 17,723,479 | 5,863,972 | 20,810,699 | 80,713 |
| GEORGIA | 122,526,613 | 105,525,118 | 4,359,799 | 374,126 | 12,267,570 | 0 |
| HAWAII | 14,819,822 | 12,347,124 | 1,078,255 | 71,950 | 1,241,083 | 81,410 |
| IDAHO | 17,576,179 | 14,108,465 | 1,236,599 | 137,999 | 2,031,217 | 61,899 |
| ILLINOIS | 359,020,481 | 338,705,936 | 4,416,667 | 782,192 | 14,855,983 | 259,703 |
| INDIANA | 80,498,066 | 68,728,413 | 3,967,347 | 1,469,366 | 6,232,984 | 99,956 |
| IOWA | 70,137,132 | 62,762,337 | 1,847,429 | 343,387 | 5,108,979 | 75,000 |
| KANSAS | 42,734,823 | 35,314,718 | 2,318,970 | 218,852 | 4,812,948 | 69,335 |
| KENTUCKY | 79,075,872 | 66,982,121 | 2,692,471 | 333,535 | 8,998,139 | 69,606 |
| LOUISIANA | 68,823,673 | 48,829,183 | 10,322,385 | 1,920,380 | 7,650,337 | 101,388 |
| MAINE | 23,954,739 | 20,912,045 | 935,269 | 191,127 | 1,856,183 | 60,115 |
| MARYLAND | 118,645,261 | 95,952,467 | 5,516,706 | 504,826 | 16,557,009 | 114,253 |
| MASSACHUSETTS | 265,378,005 | 239,294,246 | 9,648,566 | 592,194 | 15,739,765 | 103,234 |
| MICHIGAN | 262,273,750 | 203,700,695 | 37,685,640 | 919,705 | 19,773,373 | 194,337 |
| MINNESOTA | 114,236,011 | 98,378,769 | 8,792,386 | 365,880 | 6,609,925 | 89,051 |
| MISSISSIPPI | 52,252,344 | 39,413,718 | 6,941,217 | 483,792 | 5,347,355 | 66,262 |
| MISSOURI | 91,585,269 | 62,092,994 | 20,329,009 | 659,655 | 8,412,693 | 90,918 |
| MONTANA | 73,922 | 0 | 0 | 0 | 0 | 73,922 |
| NEBRASKA | 25,685,364 | 21,028,477 | 1,677,486 | 130,720 | 2,772,045 | 76,636 |
| NEVADA | 13,531,860 | 12,001,612 | 275,644 | 95,511 | 1,079,869 | 79,224 |
| NEW HAMPSHIRE | 13,087,434 | 10,254,376 | 742,576 | 100,328 | 1,932,544 | 57,608 |
| NEW JERSEY | 178,696,688 | 165,328,567 | 6,263,997 | 1,128,904 | 5,877,565 | 97,655 |
| NEW MEXICO | 30,333,809 | 25,916,784 | 933,720 | 139,054 | 3,248,346 | 95,905 |
| NEW YORK | 588,412,760 | 567,159,158 | 7,656,320 | 606,641 | 12,832,046 | 158,595 |
| NORTH CAROLINA | 208,063,614 | 183,425,664 | 10,305,168 | 538,939 | 13,655,971 | 137,872 |
| NORTH DAKOTA | 16,663,533 | 13,805,594 | 841,486 | 82,960 | 1,864,494 | 68,999 |
| OHIO | 364,229,988 | 291,462,716 | 18,652,398 | 1,510,546 | 52,427,274 | 177,054 |
| OKLAHOMA | 90,466,836 | 79,293,220 | 5,218,803 | 269,474 | 5,621,196 | 64,143 |
| OREGON | 24,210,263 | 21,173,897 | 1,848,857 | 390,468 | 722,073 | 74,568 |
| PENNSYLVANIA | 303,594,893 | 279,636,683 | 18,352,676 | 1,437,415 | 4,088,583 | 79,536 |
| RHODE ISLAND | 28,740,597 | 24,501,234 | 1,368,248 | 168,662 | 2,645,913 | 56,540 |
| SOUTH CAROLINA | 136,193,301 | 123,546,021 | 6,668,879 | 382,543 | 5,495,606 | 100,252 |
| SOUTH DAKOTA | 10,805,192 | 7,881,470 | 613,565 | 12,075 | 2,233,858 | 64,224 |
| TENNESSEE | 116,142,980 | 92,004,615 | 4,933,689 | 463,908 | 18,631,688 | 109,080 |

### TABLE F-2.-- FEDERAL AND STATE/LOCAL (VEA) EXPENDITURES (INCLUDING CARRYOVER AND UNLIQUIDATED OBLIGATIONS) BY LEGISLATIVE SECTION BY STATE: UNITED STATES, OUTLYING AREAS FISCAL YEAR 1979.

| STATE | TOTAL | BASIC GRANTS (SEC 120) | PROGRAM IMPROVEMENT (SEC 130) | DISADVANTAGED (SEC 140) | CONSUMER AND HOMEMAKING (SEC 150) | STATE ADVISORY COUNCILS (SEC 105) |
|---|---|---|---|---|---|---|
| TEXAS | 335,179,978 | 262,017,737 | 37,870,064 | 947,958 | 34,131,485 | 212,734 |
| UTAH | 44,640,880 | 39,959,045 | 2,914,773 | 667,975 | 1,030,456 | 68,631 |
| VERMONT | 10,930,027 | 9,101,319 | 500,181 | 19,911 | 1,232,409 | 76,207 |
| VIRGINIA | 141,544,101 | 123,020,822 | 4,175,283 | 988,495 | 13,251,443 | 108,058 |
| WASHINGTON | 167,799,288 | 137,763,769 | 10,812,065 | 1,154,633 | 17,989,400 | 79,421 |
| WEST VIRGINIA | 40,952,947 | 34,368,244 | 2,270,221 | 349,945 | 3,903,851 | 60,686 |
| WISCONSIN | 192,074,709 | 164,426,339 | 20,585,469 | 870,775 | 6,052,226 | 139,900 |
| WYOMING | 6,431,339 | 4,364,660 | 561,185 | 145,227 | 1,279,003 | 81,264 |
| TOTAL U.S. | $6,619,800,384 | $5,725,950,699 | $378,881,200 | $32,786,287 | $477,397,491 | $4,784,707 |
| AMERICAN SAMOA | 888,612 | 702,931 | 44,822 | 6,740 | 55,508 | 78,611 |
| GUAM | 303,098 | 200,132 | 4,373 | 11,021 | 636 | 86,936 |
| PUERTO RICO | 41,178,580 | 27,700,280 | 5,299,930 | 363,414 | 7,764,621 | 50,335 |
| VIRGIN ISLANDS | 75,000 | 0 | 0 | 0 | 0 | 75,000 |
| TRUST TERRITORY | 128,981 | 0 | 7,053 | 20,817 | 8,993 | 92,118 |
| OUTLYING AREAS | $42,574,271 | $28,603,343 | $5,356,178 | $401,992 | $7,829,758 | $383,000 |
| U.S. AND OUTLYING AREAS | $6,662,374,655 | $5,754,554,042 | $384,237,378 | $33,188,279 | $485,227,249 | $5,167,707 |

## TABLE F-3.-- VOCATIONAL EDUCATION (VEA) EXPENDITURES (INCLUDING UNLIQUIDATED OBLIGATIONS) BY SOURCE OF FUNDS BY STATE: UNITED STATES, OUTLYING AREAS FISCAL YEAR 1979.

(SUM OF SECTIONS 120, 130, 140, AND 150 IN THOUSANDS) 1/

| STATE | EXPENDITURES | | | OUTLAYS | | | UNLIQUIDATED OBLIGATIONS | | |
|---|---|---|---|---|---|---|---|---|---|
| | TOTAL | NON-FEDERAL | FEDERAL | TOTAL | NON-FEDERAL | FEDERAL | TOTAL | NON-FEDERAL | FEDERAL |
| ALABAMA | 73,842 | 60,786 | 13,056 | 71,843 | 60,786 | 11,057 | 1,999 | 0 | 1,999 |
| ALASKA | 13,061 | 11,422 | 1,639 | 12,774 | 11,422 | 1,352 | 287 | 0 | 287 |
| ARIZONA | 40,567 | 34,157 | 6,410 | 40,567 | 34,157 | 6,410 | 0 | 0 | 0 |
| ARKANSAS | 38,288 | 32,334 | 5,954 | 38,288 | 32,334 | 5,954 | 0 | 0 | 0 |
| CALIFORNIA | 986,951 | 913,939 | 73,012 | 984,288 | 913,939 | 70,349 | 2,663 | 0 | 2,663 |
| COLORADO | 74,100 | 66,680 | 7,420 | 74,100 | 66,680 | 7,420 | 0 | 0 | 0 |
| CONNECTICUT | 67,273 | 60,357 | 6,917 | 67,273 | 60,357 | 6,917 | 0 | 0 | 0 |
| DELAWARE | 34,765 | 33,268 | 1,497 | 34,765 | 33,268 | 1,497 | 0 | 0 | 0 |
| DISTRICT OF COLUMBIA | 6,105 | 4,363 | 1,742 | 6,025 | 4,363 | 1,663 | 80 | 0 | 80 |
| FLORIDA | 411,975 | 377,239 | 34,736 | 394,962 | 377,239 | 17,723 | 17,013 | 0 | 17,013 |
| GEORGIA | 122,527 | 105,519 | 17,008 | 112,963 | 97,862 | 15,101 | 9,563 | 7,656 | 1,907 |
| HAWAII | 14,738 | 12,415 | 2,323 | 14,158 | 12,093 | 2,066 | 580 | 323 | 257 |
| IDAHO | 17,514 | 14,726 | 2,789 | 17,514 | 14,726 | 2,789 | 0 | 0 | 0 |
| ILLINOIS | 358,761 | 341,937 | 16,824 | 358,761 | 341,937 | 16,824 | 0 | 0 | 0 |
| INDIANA | 80,398 | 66,759 | 13,639 | 80,398 | 66,759 | 13,639 | 0 | 0 | 0 |
| IOWA | 70,062 | 62,420 | 7,642 | 70,062 | 62,420 | 7,642 | 0 | 0 | 0 |
| KANSAS | 42,665 | 37,017 | 5,649 | 42,167 | 37,017 | 5,150 | 499 | 0 | 499 |
| KENTUCKY | 79,006 | 67,713 | 11,294 | 78,587 | 67,713 | 10,874 | 419 | 0 | 419 |
| LOUISIANA | 68,722 | 56,856 | 11,866 | 68,722 | 56,856 | 11,866 | 0 | 0 | 0 |
| MAINE | 23,895 | 20,475 | 3,419 | 23,895 | 20,475 | 3,419 | 0 | 0 | 0 |
| MARYLAND | 118,531 | 104,019 | 14,512 | 118,531 | 104,019 | 14,512 | 0 | 0 | 0 |
| MASSACHUSETTS | 265,275 | 245,106 | 20,169 | 257,958 | 245,106 | 12,852 | 7,317 | 0 | 7,317 |
| MICHIGAN | 262,079 | 236,394 | 25,685 | 245,784 | 229,684 | 16,100 | 16,295 | 6,710 | 9,585 |
| MINNESOTA | 114,147 | 103,138 | 11,009 | 114,025 | 103,138 | 10,887 | 122 | 0 | 122 |
| MISSISSIPPI | 52,186 | 44,112 | 8,074 | 52,186 | 44,112 | 8,074 | 0 | 0 | 0 |
| MISSOURI | 91,494 | 78,337 | 13,158 | 91,494 | 78,337 | 13,158 | 0 | 0 | 0 |
| MONTANA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NEBRASKA | 25,609 | 21,536 | 4,072 | 25,609 | 21,536 | 4,072 | 0 | 0 | 0 |
| NEVADA | 13,453 | 12,016 | 1,437 | 13,453 | 12,016 | 1,437 | 0 | 0 | 0 |
| NEW HAMPSHIRE | 13,030 | 10,454 | 2,576 | 12,585 | 10,454 | 2,131 | 445 | 0 | 445 |
| NEW JERSEY | 178,599 | 162,330 | 16,269 | 178,599 | 162,330 | 16,269 | 0 | 0 | 0 |
| NEW MEXICO | 30,238 | 24,832 | 5,406 | 28,563 | 24,832 | 3,731 | 1,675 | 0 | 1,675 |
| NEW YORK | 588,254 | 552,161 | 36,093 | 588,254 | 552,161 | 36,093 | 0 | 0 | 0 |
| NORTH CAROLINA | 207,926 | 190,609 | 17,316 | 207,926 | 190,609 | 17,316 | 0 | 0 | 0 |
| NORTH DAKOTA | 16,595 | 14,594 | 2,001 | 16,595 | 14,594 | 2,001 | 0 | 0 | 0 |
| OHIO | 364,053 | 328,369 | 35,684 | 352,436 | 321,824 | 30,612 | 11,617 | 6,545 | 5,072 |
| OKLAHOMA | 90,403 | 82,206 | 8,197 | 89,474 | 81,392 | 8,082 | 928 | 813 | 115 |
| OREGON | 24,136 | 15,579 | 8,557 | 22,255 | 15,579 | 6,676 | 1,881 | 0 | 1,881 |
| PENNSYLVANIA | 303,515 | 269,625 | 33,891 | 293,188 | 269,625 | 23,563 | 10,327 | 0 | 10,327 |
| RHODE ISLAND | 28,684 | 26,022 | 2,662 | 28,523 | 26,022 | 2,501 | 161 | 0 | 161 |
| SOUTH CAROLINA | 136,093 | 126,419 | 9,674 | 136,093 | 126,419 | 9,674 | 0 | 0 | 0 |
| SOUTH DAKOTA | 10,741 | 8,696 | 2,045 | 10,741 | 8,696 | 2,045 | 0 | 0 | 0 |

TABLE F-3.-- VOCATIONAL EDUCATION (VEA) EXPENDITURES (INCLUDING UNLIQUIDATED OBLIGATIONS) BY SOURCE OF FUNDS BY STATE: UNITED STATES, OUTLYING AREAS FISCAL YEAR 1979.
(SUM OF SECTIONS 120, 130, 140, AND 150 IN THOUSANDS) 1/

| STATE | ---------- EXPENDITURES ---------- | | | ------------ OUTLAYS ------------ | | | - UNLIQUIDATED OBLIGATIONS - | | |
|---|---|---|---|---|---|---|---|---|---|
| | TOTAL | NON-FEDERAL | FEDERAL | TOTAL | NON-FEDERAL | FEDERAL | TOTAL | NON-FEDERAL | FEDERAL |
| TENNESSEE | 116,034 | 103,362 | 12,672 | 116,034 | 103,362 | 12,672 | 0 | 0 | 0 |
| TEXAS | 334,967 | 289,589 | 45,378 | 273,083 | 244,155 | 28,928 | 61,884 | 45,434 | 16,450 |
| UTAH | 44,572 | 39,716 | 4,856 | 44,572 | 39,716 | 4,856 | 0 | 0 | 0 |
| VERMONT | 10,854 | 9,455 | 1,399 | 10,854 | 9,455 | 1,399 | 0 | 0 | 0 |
| VIRGINIA | 141,436 | 128,114 | 13,322 | 141,436 | 128,114 | 13,322 | 0 | 0 | 0 |
| WASHINGTON | 167,720 | 151,551 | 16,168 | 163,687 | 151,551 | 12,135 | 4,033 | 0 | 4,033 |
| WEST VIRGINIA | 40,892 | 35,095 | 5,797 | 40,768 | 35,095 | 5,673 | 124 | 0 | 124 |
| WISCONSIN | 191,935 | 170,578 | 21,357 | 163,075 | 150,632 | 12,443 | 28,860 | 19,946 | 8,914 |
| WYOMING | 6,350 | 5,005 | 1,345 | 5,780 | 4,723 | 1,057 | 570 | 282 | 288 |
| TOTAL U.S. | $6,615,016 | $5,969,401 | $645,617 | $6,435,673 | $5,881,691 | $553,983 | $179,342 | $87,709 | $91,633 |
| AMERICAN SAMOA | 810 | 522 | 288 | 810 | 522 | 288 | 0 | 0 | 0 |
| GUAM | 216 | 0 | 216 | 155 | 0 | 155 | 61 | 0 | 61 |
| PUERTO RICO | 41,128 | 29,167 | 11,962 | 39,352 | 28,693 | 10,659 | 1,777 | 474 | 1,302 |
| VIRGIN ISLANDS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TRUST TERRITORY | 37 | 0 | 37 | 22 | 0 | 22 | 15 | 0 | 15 |
| OUTLYING AREAS | $42,191 | $29,689 | $12,503 | $40,339 | $29,215 | $11,124 | $1,853 | $474 | $1,378 |
| U.S. AND OUTLYING AREAS | $6,657,207 | $5,999,090 | $658,120 | $6,476,012 | $5,910,906 | $565,107 | $181,195 | $88,183 | $93,011 |

1/ NOTE: DUE TO ROUNDING TOTALS MAY NOT ADD.

TABLE F-4.-- VOCATIONAL EDUCATION (VEA) SECTION 120 EXPENDITURES (INCLUDING UNLIQUIDATED OBLIGATIONS) BY SOURCE OF FUNDS BY STATE: UNITED STATES, OUTLYING AREAS FISCAL YEAR 1979.
(IN THOUSANDS) 1/

| STATE | EXPENDITURES | | | OUTLAYS | | | UNLIQUIDATED OBLIGATIONS | | |
|---|---|---|---|---|---|---|---|---|---|
| | TOTAL | NON-FEDERAL | FEDERAL | TOTAL | NON-FEDERAL | FEDERAL | TOTAL | NON-FEDERAL | FEDERAL |
| ALABAMA | 61,379 | 51,794 | 9,586 | 59,545 | 51,794 | 7,751 | 1,835 | 0 | 1,835 |
| ALASKA | 12,235 | 11,051 | 1,184 | 12,029 | 11,051 | 978 | 205 | 0 | 205 |
| ARIZONA | 33,441 | 29,057 | 4,383 | 33,441 | 29,057 | 4,383 | 0 | 0 | 0 |
| ARKANSAS | 28,372 | 23,917 | 4,454 | 28,372 | 23,917 | 4,454 | 0 | 0 | 0 |
| CALIFORNIA | 856,884 | 804,740 | 52,144 | 855,498 | 804,740 | 50,759 | 1,385 | 0 | 1,385 |
| COLORADO | 64,707 | 59,500 | 5,206 | 64,707 | 59,500 | 5,206 | 0 | 0 | 0 |
| CONNECTICUT | 57,922 | 52,730 | 5,192 | 57,922 | 52,730 | 5,192 | 0 | 0 | 0 |
| DELAWARE | 31,688 | 30,579 | 1,109 | 31,688 | 30,579 | 1,109 | 0 | 0 | 0 |
| DISTRICT OF COLUMBIA | 5,257 | 4,017 | 1,240 | 5,186 | 4,017 | 1,169 | 71 | 0 | 71 |
| FLORIDA | 367,577 | 342,114 | 25,463 | 354,562 | 342,114 | 12,448 | 13,014 | 0 | 13,014 |
| GEORGIA | 105,525 | 93,026 | 12,499 | 97,103 | 85,659 | 11,443 | 8,423 | 7,367 | 1,056 |
| HAWAII | 12,347 | 10,713 | 1,634 | 11,863 | 10,401 | 1,461 | 485 | 312 | 173 |
| IDAHO | 14,108 | 12,090 | 2,018 | 14,108 | 12,090 | 2,018 | 0 | 0 | 0 |
| ILLINOIS | 338,706 | 326,875 | 11,831 | 338,706 | 326,875 | 11,831 | 0 | 0 | 0 |
| INDIANA | 68,728 | 59,064 | 9,664 | 68,728 | 59,064 | 9,664 | 0 | 0 | 0 |
| IOWA | 62,762 | 57,072 | 5,690 | 62,762 | 57,072 | 5,690 | 0 | 0 | 0 |
| KANSAS | 35,315 | 31,240 | 4,074 | 34,967 | 31,240 | 3,726 | 348 | 0 | 348 |
| KENTUCKY | 66,982 | 58,759 | 8,223 | 66,631 | 58,759 | 7,872 | 351 | 0 | 351 |
| LOUISIANA | 48,829 | 40,288 | 8,541 | 48,829 | 40,288 | 8,541 | 0 | 0 | 0 |
| MAINE | 20,912 | 18,450 | 2,462 | 20,912 | 18,450 | 2,462 | 0 | 0 | 0 |
| MARYLAND | 95,952 | 85,606 | 10,346 | 95,952 | 85,606 | 10,346 | 0 | 0 | 0 |
| MASSACHUSETTS | 239,294 | 223,920 | 15,374 | 233,891 | 223,920 | 9,970 | 5,404 | 0 | 5,404 |
| MICHIGAN | 203,701 | 187,642 | 16,059 | 189,734 | 181,367 | 8,368 | 13,966 | 6,275 | 7,691 |
| MINNESOTA | 98,379 | 90,574 | 7,804 | 98,379 | 90,574 | 7,804 | 0 | 0 | 0 |
| MISSISSIPPI | 39,414 | 33,652 | 5,761 | 39,414 | 33,652 | 5,761 | 0 | 0 | 0 |
| MISSOURI | 62,093 | 52,942 | 9,151 | 62,093 | 52,942 | 9,151 | 0 | 0 | 0 |
| MONTANA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NEBRASKA | 21,028 | 18,046 | 2,983 | 21,028 | 18,046 | 2,983 | 0 | 0 | 0 |
| NEVADA | 12,002 | 10,928 | 1,074 | 12,002 | 10,928 | 1,074 | 0 | 0 | 0 |
| NEW HAMPSHIRE | 10,254 | 8,383 | 1,871 | 10,003 | 8,383 | 1,620 | 252 | 0 | 252 |
| NEW JERSEY | 165,329 | 153,445 | 11,884 | 165,329 | 153,445 | 11,884 | 0 | 0 | 0 |
| NEW MEXICO | 25,917 | 21,872 | 4,045 | 24,815 | 21,872 | 2,943 | 1,102 | 0 | 1,102 |
| NEW YORK | 567,159 | 541,543 | 25,616 | 567,159 | 541,543 | 25,616 | 0 | 0 | 0 |
| NORTH CAROLINA | 183,426 | 170,952 | 12,474 | 183,426 | 170,952 | 12,474 | 0 | 0 | 0 |
| NORTH DAKOTA | 13,806 | 12,393 | 1,413 | 13,806 | 12,393 | 1,413 | 0 | 0 | 0 |
| OHIO | 291,463 | 265,610 | 25,853 | 281,514 | 259,317 | 22,197 | 9,949 | 6,293 | 3,656 |
| OKLAHOMA | 79,293 | 73,397 | 5,896 | 78,520 | 72,661 | 5,859 | 773 | 736 | 37 |
| OREGON | 21,174 | 15,124 | 6,050 | 19,932 | 15,124 | 4,808 | 1,242 | 0 | 1,242 |
| PENNSYLVANIA | 279,637 | 255,546 | 24,091 | 272,345 | 255,546 | 16,799 | 7,292 | 0 | 7,292 |
| RHODE ISLAND | 24,501 | 22,514 | 1,987 | 24,368 | 22,514 | 1,853 | 134 | 0 | 134 |
| SOUTH CAROLINA | 123,546 | 116,659 | 6,887 | 123,546 | 116,659 | 6,887 | 0 | 0 | 0 |
| SOUTH DAKOTA | 7,881 | 6,338 | 1,544 | 7,881 | 6,338 | 1,544 | 0 | 0 | 0 |

TABLE F-4.-- VOCATIONAL EDUCATION (VEA) SECTION 120 EXPENDITURES (INCLUDING UNLIQUIDATED OBLIGATIONS) BY SOURCE OF FUNDS BY STATE: UNITED STATES, OUTLYING AREAS FISCAL YEAR 1979.
(IN THOUSANDS) 1/

| STATE | EXPENDITURES |  |  | OUTLAYS |  |  | UNLIQUIDATED OBLIGATIONS |  |  |
|---|---|---|---|---|---|---|---|---|---|
|  | TOTAL | NON-FEDERAL | FEDERAL | TOTAL | NON-FEDERAL | FEDERAL | TOTAL | NON-FEDERAL | FEDERAL |
| TENNESSEE | 92,005 | 83,839 | 8,165 | 92,005 | 83,839 | 8,165 | 0 | 0 | 0 |
| TEXAS | 262,018 | 229,020 | 32,998 | 222,022 | 200,161 | 21,861 | 39,996 | 28,859 | 11,137 |
| UTAH | 39,959 | 36,617 | 3,342 | 39,959 | 36,617 | 3,342 | 0 | 0 | 0 |
| VERMONT | 9,101 | 8,058 | 1,043 | 9,101 | 8,058 | 1,043 | 0 | 0 | 0 |
| VIRGINIA | 123,021 | 113,450 | 9,571 | 123,021 | 113,450 | 9,571 | 0 | 0 | 0 |
| WASHINGTON | 137,764 | 126,599 | 11,165 | 135,277 | 126,599 | 8,678 | 2,487 | 0 | 2,487 |
| WEST VIRGINIA | 34,368 | 30,283 | 4,085 | 34,368 | 30,283 | 4,085 | 0 | 0 | 0 |
| WISCONSIN | 164,426 | 149,050 | 15,376 | 140,188 | 131,049 | 9,138 | 24,239 | 18,000 | 6,238 |
| WYOMING | 4,365 | 3,493 | 871 | 4,096 | 3,359 | 737 | 269 | 135 | 135 |
| TOTAL U.S. | $5,725,952 | $5,264,571 | $461,376 | $5,592,733 | $5,196,594 | $396,131 | $133,222 | $67,977 | $65,245 |
| AMERICAN SAMOA | 703 | 486 | 217 | 703 | 486 | 217 | 0 | 0 | 0 |
| GUAM | 200 | 0 | 200 | 142 | 0 | 142 | 58 | 0 | 58 |
| PUERTO RICO | 27,700 | 19,135 | 8,565 | 26,326 | 18,685 | 7,641 | 1,374 | 451 | 924 |
| VIRGIN ISLANDS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TRUST TERRITORY | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| OUTLYING AREAS | $28,603 | $19,621 | $8,982 | $27,171 | $19,171 | $8,000 | $1,432 | $451 | $982 |
| U.S. AND OUTLYING AREAS | $5,754,555 | $5,284,192 | $470,358 | $5,619,904 | $5,215,765 | $404,131 | $134,654 | $68,428 | $66,227 |

1/ NOTE: DUE TO ROUNDING TOTALS MAY NOT ADD.

### TABLE F-5.-- VOCATIONAL EDUCATION (VEA) SECTION 130 EXPENDITURES (INCLUDING UNLIQUIDATED OBLIGATIONS) BY SOURCE OF FUNDS BY STATE: UNITED STATES, OUTLYING AREAS FISCAL YEAR 1979.
(IN THOUSANDS) 1/

|  | ---------- EXPENDITURES ---------- |  |  | ------------- OUTLAYS ------------ |  |  | - UNLIQUIDATED OBLIGATIONS - |  |  |
|---|---|---|---|---|---|---|---|---|---|
| STATE | TOTAL | NON-FEDERAL | FEDERAL | TOTAL | NON-FEDERAL | FEDERAL | TOTAL | NON-FEDERAL | FEDERAL |
| ALABAMA | 5,331 | 3,050 | 2,281 | 5,279 | 3,050 | 2,229 | 52 | 0 | 52 |
| ALASKA | 329 | 49 | 280 | 287 | 49 | 238 | 42 | 0 | 42 |
| ARIZONA | 2,062 | 646 | 1,416 | 2,062 | 646 | 1,416 | 0 | 0 | 0 |
| ARKANSAS | 4,805 | 3,903 | 902 | 4,805 | 3,903 | 902 | 0 | 0 | 0 |
| CALIFORNIA | 52,547 | 38,588 | 13,959 | 51,270 | 38,588 | 12,682 | 1,277 | 0 | 1,277 |
| COLORADO | 3,873 | 2,532 | 1,341 | 3,873 | 2,532 | 1,341 | 0 | 0 | 0 |
| CONNECTICUT | 2,430 | 1,452 | 978 | 2,430 | 1,452 | 978 | 0 | 0 | 0 |
| DELAWARE | 1,304 | 1,061 | 244 | 1,304 | 1,061 | 244 | 0 | 0 | 0 |
| DISTRICT OF COLUMBIA | 345 | 34 | 311 | 340 | 34 | 306 | 5 | 0 | 5 |
| FLORIDA | 17,723 | 12,260 | 5,464 | 15,755 | 12,260 | 3,495 | 1,968 | 0 | 1,968 |
| GEORGIA | 4,360 | 1,372 | 2,988 | 3,575 | 1,194 | 2,380 | 785 | 178 | 608 |
| HAWAII | 1,078 | 634 | 444 | 1,032 | 627 | 405 | 47 | 7 | 40 |
| IDAHO | 1,237 | 773 | 464 | 1,237 | 773 | 464 | 0 | 0 | 0 |
| ILLINOIS | 4,417 | 1,765 | 2,652 | 4,417 | 1,765 | 2,652 | 0 | 0 | 0 |
| INDIANA | 3,967 | 1,713 | 2,254 | 3,967 | 1,713 | 2,254 | 0 | 0 | 0 |
| IOWA | 1,847 | 624 | 1,223 | 1,847 | 624 | 1,223 | 0 | 0 | 0 |
| KANSAS | 2,319 | 1,308 | 1,011 | 2,198 | 1,308 | 890 | 121 | 0 | 121 |
| KENTUCKY | 2,692 | 783 | 1,909 | 2,664 | 783 | 1,881 | 28 | 0 | 28 |
| LOUISIANA | 10,322 | 8,273 | 2,049 | 10,322 | 8,273 | 2,049 | 0 | 0 | 0 |
| MAINE | 935 | 402 | 534 | 935 | 402 | 534 | 0 | 0 | 0 |
| MARYLAND | 5,517 | 2,943 | 2,574 | 5,517 | 2,943 | 2,574 | 0 | 0 | 0 |
| MASSACHUSETTS | 9,649 | 6,464 | 3,184 | 8,425 | 6,464 | 1,960 | 1,224 | 0 | 1,224 |
| MICHIGAN | 37,686 | 30,661 | 7,025 | 35,552 | 30,255 | 5,297 | 2,133 | 406 | 1,728 |
| MINNESOTA | 8,792 | 6,725 | 2,067 | 8,792 | 6,725 | 2,067 | 0 | 0 | 0 |
| MISSISSIPPI | 6,941 | 5,570 | 1,371 | 6,941 | 5,570 | 1,371 | 0 | 0 | 0 |
| MISSOURI | 20,329 | 17,661 | 2,668 | 20,329 | 17,661 | 2,668 | 0 | 0 | 0 |
| MONTANA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NEBRASKA | 1,677 | 1,023 | 654 | 1,677 | 1,023 | 654 | 0 | 0 | 0 |
| NEVADA | 276 | 62 | 214 | 276 | 62 | 214 | 0 | 0 | 0 |
| NEW HAMPSHIRE | 743 | 361 | 382 | 617 | 361 | 256 | 125 | 0 | 125 |
| NEW JERSEY | 6,264 | 3,700 | 2,564 | 6,264 | 3,700 | 2,564 | 0 | 0 | 0 |
| NEW MEXICO | 934 | 95 | 839 | 590 | 95 | 495 | 344 | 0 | 344 |
| NEW YORK | 7,656 | 500 | 7,156 | 7,656 | 500 | 7,156 | 0 | 0 | 0 |
| NORTH CAROLINA | 10,305 | 7,195 | 3,110 | 10,305 | 7,195 | 3,110 | 0 | 0 | 0 |
| NORTH DAKOTA | 841 | 489 | 352 | 841 | 489 | 352 | 0 | 0 | 0 |
| OHIO | 18,652 | 12,596 | 6,057 | 17,801 | 12,460 | 5,341 | 852 | 136 | 716 |
| OKLAHOMA | 5,219 | 3,711 | 1,507 | 5,066 | 3,639 | 1,426 | 153 | 72 | 81 |
| OREGON | 1,849 | 172 | 1,677 | 1,407 | 172 | 1,235 | 442 | 0 | 442 |
| PENNSYLVANIA | 18,353 | 11,970 | 6,383 | 16,371 | 11,970 | 4,402 | 1,981 | 0 | 1,981 |
| RHODE ISLAND | 1,368 | 971 | 397 | 1,363 | 971 | 392 | 5 | 0 | 5 |
| SOUTH CAROLINA | 6,669 | 4,920 | 1,749 | 6,669 | 4,920 | 1,749 | 0 | 0 | 0 |
| SOUTH DAKOTA | 614 | 285 | 329 | 614 | 285 | 329 | 0 | 0 | 0 |

TABLE F-5.-- VOCATIONAL EDUCATION (VEA) SECTION 130 EXPENDITURES (INCLUDING UNLIQUIDATED OBLIGATIONS) BY SOURCE OF FUNDS BY STATE: UNITED STATES, OUTLYING AREAS FISCAL YEAR 1979.
(IN THOUSANDS) 1/

| STATE | EXPENDITURES |  |  | OUTLAYS |  |  | UNLIQUIDATED OBLIGATIONS |  |  |
|---|---|---|---|---|---|---|---|---|---|
|  | TOTAL | NON-FEDERAL | FEDERAL | TOTAL | NON-FEDERAL | FEDERAL | TOTAL | NON-FEDERAL | FEDERAL |
| TENNESSEE | 4,934 | 2,639 | 2,294 | 4,934 | 2,639 | 2,294 | 0 | 0 | 0 |
| TEXAS | 37,870 | 28,457 | 9,413 | 17,133 | 11,947 | 5,186 | 20,737 | 16,511 | 4,226 |
| UTAH | 2,915 | 1,947 | 968 | 2,915 | 1,947 | 968 | 0 | 0 | 0 |
| VERMONT | 500 | 279 | 222 | 500 | 279 | 222 | 0 | 0 | 0 |
| VIRGINIA | 4,175 | 1,918 | 2,257 | 4,175 | 1,918 | 2,257 | 0 | 0 | 0 |
| WASHINGTON | 10,812 | 7,659 | 3,153 | 9,845 | 7,659 | 2,186 | 967 | 0 | 967 |
| WEST VIRGINIA | 2,270 | 1,140 | 1,130 | 2,212 | 1,140 | 1,072 | 59 | 0 | 59 |
| WISCONSIN | 20,585 | 16,773 | 3,813 | 17,095 | 14,986 | 2,109 | 3,490 | 1,787 | 1,704 |
| WYOMING | 561 | 271 | 290 | 346 | 164 | 182 | 215 | 108 | 108 |
| TOTAL U.S. | $378,879 | $260,379 | $118,503 | $341,827 | $241,176 | $100,651 | $37,052 | $19,205 | $17,851 |
| AMERICAN SAMOA | 45 | 0 | 45 | 45 | 0 | 45 | 0 | 0 | 0 |
| GUAM | 4 | 0 | 4 | 1 | 0 | 1 | 3 | 0 | 3 |
| PUERTO RICO | 5,300 | 3,067 | 2,233 | 5,058 | 3,062 | 1,996 | 242 | 5 | 237 |
| VIRGIN ISLANDS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TRUST TERRITORY | 7 | 0 | 7 | 1 | 0 | 1 | 6 | 0 | 6 |
| OUTLYING AREAS | $5,356 | $3,067 | $2,289 | $5,105 | $3,062 | $2,043 | $251 | $5 | $246 |
| U.S. AND OUTLYING AREAS | $384,235 | $263,446 | $120,792 | $346,932 | $244,238 | $102,694 | $37,303 | $19,210 | $18,097 |

1/ NOTE: DUE TO ROUNDING TOTALS MAY NOT ADD.

TABLE F-6.-- VOCATIONAL EDUCATION (VEA) SECTION 140 EXPENDITURES (INCLUDING UNLIQUIDATED OBLIGATIONS) BY SOURCE OF FUNDS BY STATE: UNITED STATES, OUTLYING AREAS FISCAL YEAR 1979, (IN THOUSANDS) 1/

| | EXPENDITURES | | | OUTLAYS | | | UNLIQUIDATED OBLIGATIONS | | |
|---|---|---|---|---|---|---|---|---|---|
| STATE | TOTAL | NON-FEDERAL | FEDERAL | TOTAL | NON-FEDERAL | FEDERAL | TOTAL | NON-FEDERAL | FEDERAL |
| ALABAMA | 402 | 0 | 402 | 343 | 0 | 343 | 59 | 0 | 59 |
| ALASKA | 69 | 9 | 60 | 55 | 9 | 46 | 14 | 0 | 14 |
| ARIZONA | 190 | 40 | 150 | 190 | 40 | 150 | 0 | 0 | 0 |
| ARKANSAS | 156 | 9 | 146 | 156 | 9 | 146 | 0 | 0 | 0 |
| CALIFORNIA | 3,165 | 896 | 2,269 | 3,165 | 896 | 2,269 | 0 | 0 | 0 |
| COLORADO | 337 | 11 | 326 | 337 | 11 | 326 | 0 | 0 | 0 |
| CONNECTICUT | 453 | 193 | 260 | 453 | 193 | 260 | 0 | 0 | 0 |
| DELAWARE | 116 | 80 | 36 | 116 | 80 | 36 | 0 | 0 | 0 |
| DISTRICT OF COLUMBIA | 62 | 0 | 62 | 60 | 0 | 60 | 3 | 0 | 3 |
| FLORIDA | 5,864 | 4,613 | 1,251 | 5,154 | 4,613 | 541 | 710 | 0 | 710 |
| GEORGIA | 374 | 0 | 374 | 196 | 0 | 196 | 178 | 0 | 178 |
| HAWAII | 72 | 0 | 72 | 64 | 0 | 64 | 8 | 0 | 8 |
| IDAHO | 138 | 8 | 130 | 138 | 8 | 130 | 0 | 0 | 0 |
| ILLINOIS | 782 | 303 | 479 | 782 | 303 | 479 | 0 | 0 | 0 |
| INDIANA | 1,469 | 703 | 767 | 1,469 | 703 | 767 | 0 | 0 | 0 |
| IOWA | 343 | 146 | 198 | 343 | 146 | 198 | 0 | 0 | 0 |
| KANSAS | 219 | 72 | 147 | 190 | 72 | 117 | 29 | 0 | 29 |
| KENTUCKY | 334 | 0 | 334 | 319 | 0 | 319 | 15 | 0 | 15 |
| LOUISIANA | 1,920 | 1,524 | 397 | 1,920 | 1,524 | 397 | 0 | 0 | 0 |
| MAINE | 191 | 0 | 191 | 191 | 0 | 191 | 0 | 0 | 0 |
| MARYLAND | 505 | 8 | 497 | 505 | 8 | 497 | 0 | 0 | 0 |
| MASSACHUSETTS | 592 | 0 | 592 | 291 | 0 | 291 | 302 | 0 | 302 |
| MICHIGAN | 920 | 180 | 740 | 800 | 160 | 640 | 120 | 20 | 100 |
| MINNESOTA | 366 | 0 | 366 | 366 | 0 | 366 | 0 | 0 | 0 |
| MISSISSIPPI | 484 | 221 | 263 | 484 | 221 | 263 | 0 | 0 | 0 |
| MISSOURI | 660 | 266 | 393 | 660 | 266 | 393 | 0 | 0 | 0 |
| MONTANA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NEBRASKA | 131 | 10 | 121 | 131 | 10 | 121 | 0 | 0 | 0 |
| NEVADA | 96 | 42 | 53 | 96 | 42 | 53 | 0 | 0 | 0 |
| NEW HAMPSHIRE | 100 | 0 | 100 | 69 | 0 | 69 | 31 | 0 | 31 |
| NEW JERSEY | 1,129 | 628 | 501 | 1,129 | 628 | 501 | 0 | 0 | 0 |
| NEW MEXICO | 139 | 0 | 139 | 54 | 0 | 54 | 85 | 0 | 85 |
| NEW YORK | 607 | 0 | 607 | 607 | 0 | 607 | 0 | 0 | 0 |
| NORTH CAROLINA | 539 | 0 | 539 | 539 | 0 | 539 | 0 | 0 | 0 |
| NORTH DAKOTA | 83 | 3 | 80 | 83 | 3 | 80 | 0 | 0 | 0 |
| OHIO | 1,511 | 48 | 1,463 | 1,386 | 48 | 1,338 | 125 | 0 | 125 |
| OKLAHOMA | 269 | 56 | 213 | 269 | 56 | 213 | 0 | 0 | 0 |
| OREGON | 390 | 59 | 331 | 273 | 59 | 213 | 118 | 0 | 118 |
| PENNSYLVANIA | 1,437 | 88 | 1,350 | 993 | 88 | 905 | 444 | 0 | 444 |
| RHODE ISLAND | 169 | 0 | 169 | 151 | 0 | 151 | 18 | 0 | 18 |
| SOUTH CAROLINA | 383 | 15 | 368 | 383 | 15 | 368 | 0 | 0 | 0 |
| SOUTH DAKOTA | 12 | 0 | 12 | 12 | 0 | 12 | 0 | 0 | 0 |

TABLE F-6.-- VOCATIONAL EDUCATION (VEA) SECTION 140 EXPENDITURES (INCLUDING UNLIQUIDATED OBLIGATIONS) BY SOURCE OF FUNDS BY STATE:
UNITED STATES, OUTLYING AREAS FISCAL YEAR 1979.
(IN THOUSANDS) 1/

| STATE | EXPENDITURES |  |  | OUTLAYS |  |  | UNLIQUIDATED OBLIGATIONS |  |  |
|---|---|---|---|---|---|---|---|---|---|
|  | TOTAL | NON-FEDERAL | FEDERAL | TOTAL | NON-FEDERAL | FEDERAL | TOTAL | NON-FEDERAL | FEDERAL |
| TENNESSEE | 464 | 34 | 430 | 464 | 34 | 430 | 0 | 0 | 0 |
| TEXAS | 948 | 9 | 939 | 571 | 1 | 570 | 377 | 8 | 369 |
| UTAH | 668 | 491 | 177 | 668 | 491 | 177 | 0 | 0 | 0 |
| VERMONT | 20 | 0 | 20 | 20 | 0 | 20 | 0 | 0 | 0 |
| VIRGINIA | 988 | 485 | 504 | 988 | 485 | 504 | 0 | 0 | 0 |
| WASHINGTON | 1,155 | 569 | 585 | 836 | 569 | 267 | 318 | 0 | 318 |
| WEST VIRGINIA | 350 | 222 | 128 | 350 | 222 | 128 | 0 | 0 | 0 |
| WISCONSIN | 871 | 183 | 688 | 499 | 173 | 326 | 372 | 10 | 361 |
| WYOMING | 145 | 69 | 76 | 95 | 44 | 51 | 50 | 25 | 25 |
| TOTAL U.S. | $32,787 | $12,293 | $20,495 | $29,413 | $12,230 | $17,182 | $3,376 | $63 | $3,312 |
| AMERICAN SAMOA | 7 | 0 | 7 | 7 | 0 | 7 | 0 | 0 | 0 |
| GUAM | 11 | 0 | 11 | 11 | 0 | 11 | 0 | 0 | 0 |
| PUERTO RICO | 363 | 0 | 363 | 317 | 0 | 317 | 46 | 0 | 46 |
| VIRGIN ISLANDS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TRUST TERRITORY | 21 | 0 | 21 | 21 | 0 | 21 | 0 | 0 | 0 |
| OUTLYING AREAS | $402 | $0 | $402 | $356 | $0 | $356 | $46 | $0 | $46 |
| U.S. AND OUTLYING AREAS | $33,189 | $12,293 | $20,897 | $29,769 | $12,230 | $17,538 | $3,422 | $63 | $3,358 |

1/ NOTE: DUE TO ROUNDING TOTALS MAY NOT ADD.

## TABLE F-7.-- VOCATIONAL EDUCATION (VEA) SECTION 150 EXPENDITURES (INCLUDING UNLIQUIDATED OBLIGATIONS) BY SOURCE OF FUNDS BY STATE: UNITED STATES, OUTLYING AREAS FISCAL YEAR 1979.
(IN THOUSANDS) 1/

| STATE | EXPENDITURES |  |  | OUTLAYS |  |  | UNLIQUIDATED OBLIGATIONS |  |  |
|---|---|---|---|---|---|---|---|---|---|
|  | TOTAL | NON-FEDERAL | FEDERAL | TOTAL | NON-FEDERAL | FEDERAL | TOTAL | NON-FEDERAL | FEDERAL |
| ALABAMA | 6,730 | 5,943 | 787 | 6,677 | 5,943 | 734 | 53 | 0 | 53 |
| ALASKA | 427 | 313 | 115 | 402 | 313 | 89 | 26 | 0 | 26 |
| ARIZONA | 4,874 | 4,414 | 460 | 4,874 | 4,414 | 460 | 0 | 0 | 0 |
| ARKANSAS | 4,955 | 4,504 | 452 | 4,955 | 4,504 | 452 | 0 | 0 | 0 |
| CALIFORNIA | 74,355 | 69,715 | 4,640 | 74,355 | 69,715 | 4,640 | 0 | 0 | 0 |
| COLORADO | 5,183 | 4,638 | 546 | 5,183 | 4,638 | 546 | 0 | 0 | 0 |
| CONNECTICUT | 6,468 | 5,982 | 486 | 6,468 | 5,982 | 486 | 0 | 0 | 0 |
| DELAWARE | 1,657 | 1,549 | 108 | 1,657 | 1,549 | 108 | 0 | 0 | 0 |
| DISTRICT OF COLUMBIA | 441 | 312 | 129 | 440 | 312 | 128 | 1 | 0 | 1 |
| FLORIDA | 20,811 | 18,252 | 2,559 | 19,491 | 18,252 | 1,239 | 1,320 | 0 | 1,320 |
| GEORGIA | 12,268 | 11,121 | 1,147 | 12,090 | 11,009 | 1,081 | 178 | 112 | 66 |
| HAWAII | 1,241 | 1,068 | 173 | 1,200 | 1,065 | 136 | 41 | 4 | 37 |
| IDAHO | 2,031 | 1,855 | 176 | 2,031 | 1,855 | 176 | 0 | 0 | 0 |
| ILLINOIS | 14,856 | 12,994 | 1,862 | 14,856 | 12,994 | 1,862 | 0 | 0 | 0 |
| INDIANA | 6,233 | 5,278 | 955 | 6,233 | 5,278 | 955 | 0 | 0 | 0 |
| IOWA | 5,109 | 4,578 | 531 | 5,109 | 4,578 | 531 | 0 | 0 | 0 |
| KANSAS | 4,813 | 4,396 | 417 | 4,813 | 4,396 | 417 | 0 | 0 | 0 |
| KENTUCKY | 8,998 | 8,170 | 828 | 8,973 | 8,170 | 802 | 26 | 0 | 26 |
| LOUISIANA | 7,650 | 6,771 | 879 | 7,650 | 6,771 | 879 | 0 | 0 | 0 |
| MAINE | 1,856 | 1,623 | 233 | 1,856 | 1,623 | 233 | 0 | 0 | 0 |
| MARYLAND | 16,557 | 15,462 | 1,095 | 16,557 | 15,462 | 1,095 | 0 | 0 | 0 |
| MASSACHUSETTS | 15,740 | 14,721 | 1,019 | 15,352 | 14,721 | 631 | 388 | 0 | 388 |
| MICHIGAN | 19,773 | 17,911 | 1,862 | 1[illegible],698 | 17,902 | 1,795 | 76 | 9 | 67 |
| MINNESOTA | 6,610 | 5,839 | 771 | [illegible],488 | 5,839 | 650 | 122 | 0 | 122 |
| MISSISSIPPI | 5,347 | 4,669 | 678 | 5,347 | 4,669 | 678 | 0 | 0 | 0 |
| MISSOURI | 8,413 | 7,468 | 945 | 8,413 | 7,468 | 945 | 0 | 0 | 0 |
| MONTANA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NEBRASKA | 2,772 | 2,457 | 315 | 2,772 | 2,457 | 315 | 0 | 0 | 0 |
| NEVADA | 1,080 | 984 | 96 | 1,080 | 984 | 96 | 0 | 0 | 0 |
| NEW HAMPSHIRE | 1,933 | 1,710 | 223 | 1,896 | 1,710 | 186 | 37 | 0 | 37 |
| NEW JERSEY | 5,878 | 4,557 | 1,320 | 5,878 | 4,557 | 1,320 | 0 | 0 | 0 |
| NEW MEXICO | 3,248 | 2,866 | 382 | 3,104 | 2,866 | 238 | 145 | 0 | 145 |
| NEW YORK | 12,832 | 10,118 | 2,714 | 12,832 | 10,118 | 2,714 | 0 | 0 | 0 |
| NORTH CAROLINA | 13,656 | 12,462 | 1,194 | 13,656 | 12,462 | 1,194 | 0 | 0 | 0 |
| NORTH DAKOTA | 1,864 | 1,709 | 156 | 1,864 | 1,709 | 156 | 0 | 0 | 0 |
| OHIO | 52,427 | 50,115 | 2,312 | 51,736 | 49,999 | 1,737 | 691 | 116 | 575 |
| OKLAHOMA | 5,621 | 5,041 | 581 | 5,619 | 5,035 | 584 | 2 | 5 | -3 |
| OREGON | 722 | 223 | 499 | 644 | 223 | 420 | 79 | 0 | 79 |
| PENNSYLVANIA | 4,089 | 2,022 | 2,067 | 3,478 | 2,022 | 1,457 | 610 | 0 | 610 |
| RHODE ISLAND | 2,646 | 2,536 | 110 | 2,642 | 2,536 | 106 | 4 | 0 | 4 |
| SOUTH CAROLINA | 5,496 | 4,825 | 671 | 5,496 | 4,825 | 671 | 0 | 0 | 0 |
| SOUTH DAKOTA | 2,234 | 2,073 | 161 | 2,234 | 2,073 | 161 | 0 | 0 | 0 |

TABLE F-7.-- VOCATIONAL EDUCATION (VEA) SECTION 150 EXPENDITURES (INCLUDING UNLIQUIDATED OBLIGATIONS) BY SOURCE OF FUNDS BY STATE: UNITED STATES, OUTLYING AREAS FISCAL YEAR 1979.
(IN THOUSANDS) 1/

| STATE | EXPENDITURES |  |  | OUTLAYS |  |  | UNLIQUIDATED OBLIGATIONS |  |  |
|---|---|---|---|---|---|---|---|---|---|
|  | TOTAL | NON-FEDERAL | FEDERAL | TOTAL | NON-FEDERAL | FEDERAL | TOTAL | NON-FEDERAL | FEDERAL |
| TENNESSEE | 18,632 | 16,849 | 1,782 | 18,632 | 16,849 | 1,782 | 0 | 0 | 0 |
| TEXAS | 34,131 | 32,103 | 2,029 | 33,357 | 32,046 | 1,311 | 774 | 56 | 718 |
| UTAH | 1,030 | 661 | 369 | 1,030 | 661 | 369 | 0 | 0 | 0 |
| VERMONT | 1,232 | 1,118 | 114 | 1,232 | 1,118 | 114 | 0 | 0 | 0 |
| VIRGINIA | 13,251 | 12,261 | 991 | 13,251 | 12,261 | 991 | 0 | 0 | 0 |
| WASHINGTON | 17,989 | 16,725 | 1,265 | 17,729 | 16,725 | 1,004 | 261 | 0 | 261 |
| WEST VIRGINIA | 3,904 | 3,450 | 454 | 3,838 | 3,450 | 388 | 66 | 0 | 66 |
| WISCONSIN | 6,052 | 4,572 | 1,480 | 5,293 | 4,423 | 870 | 759 | 149 | 611 |
| WYOMING | 1,279 | 1,172 | 107 | 1,243 | 1,157 | 86 | 36 | 15 | 21 |
| TOTAL U.S. | $477,394 | $432,155 | $45,245 | $471,704 | $431,688 | $40,018 | $5,695 | $466 | $5,230 |
| AMERICAN SAMOA | 56 | 37 | 19 | 56 | 37 | 19 | 0 | 0 | 0 |
| GUAM | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| PUERTO RICO | 7,765 | 6,964 | 801 | 7,650 | 6,946 | 704 | 114 | 18 | 96 |
| VIRGIN ISLANDS | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TRUST TERRITORY | 9 | 0 | 9 | 0 | 0 | 0 | 9 | 0 | 9 |
| OUTLYING AREAS | $7,831 | $7,001 | $830 | $7,706 | $6,983 | $723 | $123 | $18 | $105 |
| U.S. AND OUTLYING AREAS | $485,225 | $439,156 | $46,075 | $479,410 | $438,671 | $40,741 | $5,818 | $484 | $5,335 |

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1/ NOTE: DUE TO ROUNDING TOTALS MAY NOT ADD.

## TABLE F-8.-- OUTLAYS BY AUTHORIZATION YEAR AND SOURCE OF FUNDS BY SECTION 110 PROGRAMS: UNITED STATES, OUTLYING AREAS 1978-79.

| PROGRAM | FISCAL YEAR 1979 TOTAL | FISCAL YEAR 1979 NON-FEDERAL | FISCAL YEAR 1979 FEDERAL | FISCAL YEAR 1978 TOTAL | FISCAL YEAR 1978 NON-FEDERAL | FISCAL YEAR 1978 FEDERAL |
|---|---|---|---|---|---|---|
| HANDICAPPED | 141,174,876 | 104,726,606 | 36,448,270 | 33,128,948 | 16,436,761 | 16,692,187 |
| DISADVANTAGED | 356,280,891 | 288,279,148 | 68,001,743 | 60,712,194 | 23,759,543 | 36,952,651 |
| LIMITED ENGLISH PROFICIENCY | 19,754,305 | 16,737,711 | 3,016,594 | 1,526,318 | 663,920 | 862,398 |
| ADULT AND POSTSECONDARY | 1,615,586,755 | 1,518,197,598 | 97,389,157 | 523,919,928 | 488,219,565 | 35,700,363 |
| SECTION TOTAL | $2,132,796,827 | $1,927,941,063 | $204,855,764 | $619,287,388 | $529,079,789 | $90,207,599 |

## TABLE F-09.--OUTLAYS FOR PROGRAMS FOR HANDICAPPED ENROLLEES UNDER SECTION 110 (INCLUDING CARRYOVER) BY SOURCE OF FUNDS, PERCENT, RATIO, AND BY STATE: UNITED STATES, OUTLYING AREAS 1978-79.

| STATE | OUTLAYS TOTAL | OUTLAYS NON-FEDERAL | OUTLAYS FEDERAL | FEDERAL AS PERCENT OF TOTAL | RATIO OF NON-FEDERAL TO FEDERAL |
|---|---|---|---|---|---|
| ALABAMA | 1,324,195 | 730,758 | 593,437 | 44.8 | 1.23 |
| ALASKA | 410,863 | 266,383 | 144,480 | 35.2 | 1.84 |
| ARIZONA | 1,689,419 | 1,111,192 | 578,227 | 34.2 | 1.92 |
| ARKANSAS | 1,568,671 | 833,048 | 735,623 | 46.9 | 1.13 |
| CALIFORNIA | 24,463,058 | 17,669,975 | 6,793,083 | 27.8 | 2.60 |
| COLORADO | 3,005,369 | 2,319,196 | 686,173 | 22.8 | 3.38 |
| CONNECTICUT | 2,844,797 | 2,091,145 | 753,652 | 26.5 | 2.77 |
| DELAWARE | 2,015,158 | 1,878,864 | 136,294 | 6.8 | 13.79 |
| DISTRICT OF COLUMBIA | 352,513 | 204,926 | 147,587 | 41.9 | 1.39 |
| FLORIDA | 9,838,010 | 8,194,690 | 1,643,320 | 16.7 | 4.99 |
| GEORGIA | 3,184,554 | 1,729,455 | 1,455,099 | 45.7 | 1.19 |
| HAWAII | 496,652 | 331,762 | 164,890 | 33.2 | 2.01 |
| IDAHO | 540,640 | 298,411 | 242,229 | 44.8 | 1.23 |
| ILLINOIS | 16,705,867 | 15,169,873 | 1,535,994 | 9.2 | 9.88 |
| INDIANA | 3,247,625 | 1,798,088 | 1,449,537 | 44.6 | 1.24 |
| IOWA | 1,957,128 | 1,211,846 | 745,282 | 38.1 | 1.63 |
| KANSAS | 864,147 | 464,559 | 399,588 | 46.2 | 1.16 |
| KENTUCKY | 1,926,201 | 1,086,771 | 839,430 | 43.6 | 1.29 |
| LOUISIANA | 1,297,059 | 593,899 | 703,160 | 54.2 | 0.84 |
| MAINE | 853,406 | 557,272 | 296,134 | 34.7 | 1.88 |
| MARYLAND | 4,861,928 | 3,373,328 | 1,488,600 | 30.6 | 2.27 |
| MASSACHUSETTS | 7,141,410 | 5,909,324 | 1,232,086 | 17.3 | 4.80 |
| MICHIGAN | 4,975,395 | 3,201,662 | 1,773,733 | 35.7 | 1.81 |
| MINNESOTA | 3,103,893 | 2,078,750 | 1,025,143 | 33.0 | 2.03 |
| MISSISSIPPI | 1,697,936 | 973,126 | 724,810 | 42.7 | 1.34 |
| MISSOURI | 3,250,736 | 1,830,652 | 1,420,084 | 43.7 | 1.29 |
| MONTANA | 0 | 0 | 0 |  | . |
| NEBRASKA | 612,691 | 330,051 | 282,640 | 46.1 | 1.17 |
| NEVADA | 642,902 | 499,876 | 143,026 | 22.2 | 3.50 |
| NEW HAMPSHIRE | 401,555 | 210,750 | 190,805 | 47.5 | 1.10 |
| NEW JERSEY | 3,792,519 | 2,335,994 | 1,456,525 | 38.4 | 1.60 |
| NEW MEXICO | 1,406,040 | 985,002 | 421,038 | 29.9 | 2.34 |
| NEW YORK | 12,918,324 | 8,848,284 | 4,070,040 | 31.5 | 2.17 |
| NORTH CAROLINA | 3,289,427 | 1,639,178 | 1,650,249 | 50.2 | 0.99 |
| NORTH DAKOTA | 377,204 | 206,406 | 170,798 | 45.3 | 1.21 |
| OHIO | 6,233,476 | 2,975,928 | 3,257,548 | 52.3 | 0.91 |
| OKLAHOMA | 1,852,349 | 1,112,117 | 740,232 | 40.0 | 1.50 |
| OREGON | 706,527 | 292,621 | 413,906 | 58.6 | 0.71 |
| PENNSYLVANIA | 6,161,600 | 3,602,221 | 2,559,379 | 41.5 | 1.41 |
| RHODE ISLAND | 4,085,476 | 3,800,114 | 285,362 | 7.0 | 13.32 |

### TABLE F-09.--OUTLAYS FOR PROGRAMS FOR HANDICAPPED ENROLLEES UNDER SECTION 110 (INCLUDING CARRYOVER) BY SOURCE OF FUNDS, PERCENT, RATIO, AND BY STATE: UNITED STATES, OUTLYING AREAS 1978-79.

| STATE | OUTLAYS<br>TOTAL | <br>NON-FEDERAL | <br>FEDERAL | FEDERAL AS PERCENT OF TOTAL | RATIO OF NON-FEDERAL TO FEDERAL |
|---|---|---|---|---|---|
| SOUTH CAROLINA | 1,787,418 | 962,106 | 825,312 | 46.2 | 1.17 |
| SOUTH DAKOTA | 303,691 | 172,070 | 131,621 | 43.3 | 1.31 |
| TENNESSEE | 3,498,808 | 2,120,128 | 1,378,680 | 39.4 | 1.54 |
| TEXAS | 5,390,182 | 3,518,577 | 1,871,605 | 34.7 | 1.88 |
| UTAH | 841,721 | 450,764 | 390,957 | 46.4 | 1.15 |
| VERMONT | 1,256,060 | 1,141,705 | 114,355 | 9.1 | 9.98 |
| VIRGINIA | 4,157,862 | 3,135,038 | 1,022,824 | 24.6 | 3.07 |
| WASHINGTON | 3,282,326 | 2,021,897 | 1,260,429 | 38.4 | 1.60 |
| WEST VIRGINIA | 1,514,634 | 892,110 | 622,524 | 41.1 | 1.43 |
| WISCONSIN | 4,477,587 | 3,229,965 | 1,247,622 | 27.9 | 2.59 |
| WYOMING | 161,822 | 80,911 | 80,911 | 50.0 | 1.00 |
| TOTAL U.S. | $172,768,831 | $120,472,768 | $52,296,063 | 30.3 | 2.30 |
| AMERICAN SAMOA | 5,833 | 0 | 5,833 | 100.0 | 0.00 |
| GUAM | 28,661 | 0 | 28,661 | 100.0 | 0.00 |
| PUERTO RICO | 1,500,499 | 690,599 | 809,900 | 54.0 | 0.85 |
| VIRGIN ISLANDS | 0 | 0 | 0 | . | . |
| TRUST TERRITORY | 0 | 0 | 0 | . | . |
| OUTLYING AREAS | $1,534,993 | $690,599 | $844,394 | 55.0 | 0.82 |
| U.S. & OUTLYING AREAS | $174,303,824 | $121,163,367 | $53,140,457 | 30.5 | 2.28 |

### TABLE F-10.--OUTLAYS FOR PROGRAMS FOR DISADVANTAGED ENROLLEES UNDER SECTION 110 (INCLUDING CARRYOVER) BY SOURCE OF FUNDS, PERCENT, RATIO, AND BY STATE: UNITED STATES, OUTLYING AREAS 1978-79.

| STATE | --------OUTLAYS-------- |  |  | FEDERAL AS PERCENT OF TOTAL | RATIO OF NON-FEDERAL TO FEDERAL |
|---|---|---|---|---|---|
|  | TOTAL | NON-FEDERAL | FEDERAL |  |  |
| ALABAMA | 3,283,743 | 1,830,401 | 1,453,342 | 44.3 | 1.26 |
| ALASKA | 423,305 | 235,006 | 188,299 | 44.5 | 1.25 |
| ARIZONA | 1,882,856 | 1,040,652 | 842,204 | 44.7 | 1.24 |
| ARKANSAS | 2,604,735 | 1,345,629 | 1,259,106 | 48.3 | 1.07 |
| CALIFORNIA | 30,893,198 | 18,589,583 | 12,303,615 | 39.8 | 1.51 |
| COLORADO | 3,609,471 | 2,304,133 | 1,305,338 | 36.2 | 1.77 |
| CONNECTICUT | 3,292,305 | 1,931,526 | 1,360,779 | 41.3 | 1.42 |
| DELAWARE | 4,780,414 | 4,516,857 | 263,557 | 5.5 | 17.14 |
| DISTRICT OF COLUMBIA | 686,567 | 417,000 | 269,567 | 39.3 | 1.55 |
| FLORIDA | 33,110,352 | 30,342,736 | 2,767,616 | 8.4 | 10.96 |
| GEORGIA | 4,833,490 | 2,627,753 | 2,205,737 | 45.6 | 1.19 |
| HAWAII | 1,178,521 | 775,409 | 403,112 | 34.2 | 1.92 |
| IDAHO | 818,176 | 446,779 | 371,397 | 45.4 | 1.20 |
| ILLINOIS | 29,347,913 | 21,705,861 | 7,642,052 | 26.0 | 2.84 |
| INDIANA | 5,273,900 | 2,956,303 | 2,317,597 | 43.9 | 1.28 |
| IOWA | 3,275,946 | 1,946,436 | 1,329,510 | 40.6 | 1.46 |
| KANSAS | 1,093,057 | 574,916 | 518,141 | 47.4 | 1.11 |
| KENTUCKY | 3,669,691 | 1,918,459 | 1,751,232 | 47.7 | 1.10 |
| LOUISIANA | 5,744,057 | 3,779,825 | 1,964,232 | 34.2 | 1.92 |
| MAINE | 1,307,383 | 800,164 | 507,219 | 38.8 | 1.58 |
| MARYLAND | 9,524,609 | 6,776,335 | 2,748,274 | 28.9 | 2.47 |
| MASSACHUSETTS | 4,982,047 | 2,575,176 | 2,406,871 | 48.3 | 1.07 |
| MICHIGAN | 11,658,755 | 7,362,022 | 4,296,733 | 36.9 | 1.71 |
| MINNESOTA | 4,537,973 | 2,724,487 | 1,813,486 | 40.0 | 1.50 |
| MISSISSIPPI | 2,985,026 | 1,687,216 | 1,297,810 | 43.5 | 1.30 |
| MISSOURI | 3,895,836 | 1,929,671 | 1,966,165 | 50.5 | 0.98 |
| MONTANA | 0 | 0 | 0 | . | . |
| NEBRASKA | 1,432,268 | 742,865 | 689,403 | 48.1 | 1.08 |
| NEVADA | 1,034,650 | 781,033 | 253,617 | 24.5 | 3.08 |
| NEW HAMPSHIRE | 750,443 | 374,600 | 375,843 | 50.1 | 1.00 |
| NEW JERSEY | 8,569,112 | 5,884,417 | 2,684,695 | 31.3 | 2.19 |
| NEW MEXICO | 8,091,403 | 7,505,036 | 586,367 | 7.2 | 12.80 |
| NEW YORK | 83,048,050 | 76,570,171 | 6,477,879 | 7.8 | 11.82 |
| NORTH CAROLINA | 5,867,813 | 2,934,984 | 2,932,829 | 50.0 | 1.00 |
| NORTH DAKOTA | 686,080 | 365,660 | 320,420 | 46.7 | 1.14 |
| OHIO | 46,753,082 | 40,398,296 | 6,354,786 | 13.6 | 6.36 |
| OKLAHOMA | 3,575,248 | 2,104,326 | 1,470,922 | 41.1 | 1.43 |
| OREGON | 1,442,274 | 599,626 | 842,648 | 58.4 | 0.71 |
| PENNSYLVANIA | 10,469,243 | 6,530,125 | 3,939,118 | 37.6 | 1.66 |
| RHODE ISLAND | 2,830,356 | 2,375,146 | 455,210 | 16.1 | 5.22 |

## TABLE F-10.--OUTLAYS FOR PROGRAMS FOR DISADVANTAGED ENROLLEES UNDER SECTION 110 (INCLUDING CARRYOVER) BY SOURCE OF FUNDS, PERCENT, RATIO, AND BY STATE: UNITED STATES, OUTLYING AREAS 1978-79.

| STATE | OUTLAYS TOTAL | OUTLAYS NON-FEDERAL | OUTLAYS FEDERAL | FEDERAL AS PERCENT OF TOTAL | RATIO OF NON-FEDERAL TO FEDERAL |
|---|---|---|---|---|---|
| SOUTH CAROLINA | 2,493,484 | 1,248,794 | 1,244,690 | 49.9 | 1.00 |
| SOUTH DAKOTA | 895,889 | 475,420 | 420,469 | 46.9 | 1.13 |
| TENNESSEE | 7,048,101 | 3,935,808 | 3,112,293 | 44.2 | 1.26 |
| TEXAS | 21,802,722 | 15,610,520 | 6,192,202 | 28.4 | 2.52 |
| UTAH | 908,553 | 80,729 | 827,824 | 91.1 | 0.10 |
| VERMONT | 541,861 | 413,540 | 128,321 | 23.7 | 3.22 |
| VIRGINIA | 4,867,190 | 2,627,904 | 2,239,286 | 46.0 | 1.17 |
| WASHINGTON | 4,732,079 | 2,398,260 | 2,333,819 | 49.3 | 1.03 |
| WEST VIRGINIA | 2,063,980 | 901,878 | 1,162,102 | 56.3 | 0.78 |
| WISCONSIN | 12,753,038 | 10,802,033 | 1,951,005 | 15.3 | 5.54 |
| WYOMING | 282,562 | 141,281 | 141,281 | 50.0 | 1.00 |
| TOTAL U.S. | $411,632,807 | $308,942,787 | $102,690,020 | 24.9 | 3.01 |
| AMERICAN SAMOA | 17,335 | 0 | 17,335 | 100.0 | 0.00 |
| GUAM | 40,987 | 0 | 40,987 | 100.0 | 0.00 |
| PUERTO RICO | 5,301,956 | 3,095,904 | 2,206,052 | 41.6 | 1.40 |
| VIRGIN ISLANDS | 0 | 0 | 0 | . | . |
| TRUST TERRITORY | 0 | 0 | 0 | . | . |
| OUTLYING AREAS | $5,360,278 | $3,095,904 | $2,264,374 | 42.2 | 1.37 |
| U.S. & OUTLYING AREAS | $416,993,085 | $312,038,691 | $104,954,394 | 25.2 | 2.97 |

## TABLE F-11.--OUTLAYS FOR PROGRAMS FOR ENROLLEES WITH LIMITED ENGLISH PROFICIENCY UNDER SECTION 110 (INCLUDING CARRYOVER) BY SOURCE OF FUNDS, PERCENT, RATIO, AND BY STATE: UNITED STATES, OUTLYING AREAS 1978-79.

| STATE | ----------OUTLAYS---------- | | | FEDERAL AS PERCENT OF TOTAL | RATIO OF NON-FEDERAL TO FEDERAL |
|---|---|---|---|---|---|
| | TOTAL | NON-FEDERAL | FEDERAL | | |
| ALABAMA | 374 | 0 | 374 | 100.0 | 0.00 |
| ALASKA | 32,839 | 13,839 | 19,000 | 57.9 | 0.73 |
| ARIZONA | 509,973 | 308,974 | 200,999 | 39.4 | 1.54 |
| ARKANSAS | 29,046 | 19,943 | 9,103 | 31.3 | 2.19 |
| CALIFORNIA | 2,749,630 | 2,301,437 | 448,193 | 16.3 | 5.13 |
| COLORADO | 66,637 | 0 | 66,637 | 100.0 | 0.00 |
| CONNECTICUT | 18,308 | 0 | 18,308 | 100.0 | 0.00 |
| DELAWARE | 96,000 | 60,000 | 36,000 | 37.5 | 1.67 |
| DISTRICT OF COLUMBIA | 24,893 | 0 | 24,893 | 100.0 | 0.00 |
| FLORIDA | 612,849 | 392,565 | 220,284 | 35.9 | 1.78 |
| GEORGIA | 5,503 | 0 | 5,503 | 100.0 | 0.00 |
| HAWAII | 0 | 0 | 0 | . | . |
| IDAHO | 23,302 | 0 | 23,302 | 100.0 | 0.00 |
| ILLINOIS | 1,287,654 | 1,013,188 | 274,466 | 21.3 | 3.69 |
| INDIANA | 43,834 | 8,079 | 35,755 | 81.6 | 0.23 |
| IOWA | 62,505 | 29,812 | 32,693 | 52.3 | 0.91 |
| KANSAS | 48,939 | 7,202 | 41,737 | 85.3 | 0.17 |
| KENTUCKY | 14,343 | 0 | 14,343 | 100.0 | 0.00 |
| LOUISIANA | 23,603 | 0 | 23,603 | 100.0 | 0.00 |
| MAINE | 0 | 0 | 0 | . | . |
| MARYLAND | 22,661 | 0 | 22,661 | 100.0 | 0.00 |
| MASSACHUSETTS | 880,221 | 868,904 | 11,317 | 1.3 | 76.78 |
| MICHIGAN | 248,186 | 22,174 | 226,012 | 91.1 | 0.10 |
| MINNESOTA | 414,000 | 207,000 | 207,000 | 50.0 | 1.00 |
| MISSISSIPPI | 0 | 0 | 0 | . | . |
| MISSOURI | 18,400 | 0 | 18,400 | 100.0 | 0.00 |
| MONTANA | 0 | 0 | 0 | . | . |
| NEBRASKA | 11,728 | 0 | 11,728 | 100.0 | 0.00 |
| NEVADA | 56,555 | 53,196 | 3,359 | 5.9 | 15.84 |
| NEW HAMPSHIRE | 46,000 | 46,000 | 0 | 0.0 | . |
| NEW JERSEY | 175,484 | 48,593 | 126,891 | 72.3 | 0.38 |
| NEW MEXICO | 197,624 | 0 | 197,624 | 100.0 | 0.00 |
| NEW YORK | 11,411,997 | 10,441,387 | 970,610 | 8.5 | 10.76 |
| NORTH CAROLINA | 16,868 | 8,434 | 8,434 | 50.0 | 1.00 |
| NORTH DAKOTA | 10,990 | 6,007 | 4,983 | 45.3 | 1.21 |
| OHIO | 99,158 | 17,862 | 81,296 | 82.0 | 0.22 |
| OKLAHOMA | 515 | 103 | 412 | 80.0 | 0.25 |
| OREGON | 6,743 | 0 | 6,743 | 100.0 | 0.00 |
| PENNSYLVANIA | 100,025 | 61,183 | 38,842 | 38.8 | 1.58 |
| RHODE ISLAND | 253,918 | 225,792 | 28,126 | 11.1 | 8.03 |

## TABLE F-11.--OUTLAYS FOR PROGRAMS FOR ENROLLEES WITH LIMITED ENGLISH PROFICIENCY UNDER SECTION 110 (INCLUDING CARRYOVER) BY SOURCE OF FUNDS, PERCENT, RATIO, AND BY STATE: UNITED STATES, OUTLYING AREAS 1978-79.

| STATE | OUTLAYS |  |  | FEDERAL AS PERCENT OF TOTAL | RATIO OF NON-FEDERAL TO FEDERAL |
|---|---|---|---|---|---|
|  | TOTAL | NON-FEDERAL | FEDERAL |  |  |
| SOUTH CAROLINA | 0 | 0 | 0 | . | . |
| SOUTH DAKOTA | 0 | 0 | 0 | . | . |
| TENNESSEE | 2,976 | 1,488 | 1,488 | 50.0 | 1.00 |
| TEXAS | 0 | 0 | 0 | . | . |
| UTAH | 218,924 | 90,413 | 128,511 | 58.7 | 0.70 |
| VERMONT | 0 | 0 | 0 | . | . |
| VIRGINIA | 32,588 | 6,067 | 26,521 | 81.4 | 0.23 |
| WASHINGTON | 321,887 | 314,089 | 7,798 | 2.4 | 40.28 |
| WEST VIRGINIA | 384 | 192 | 192 | 50.0 | 1.00 |
| WISCONSIN | 877,230 | 727,708 | 149,522 | 17.0 | 4.87 |
| WYOMING | 0 | 0 | 0 | . | . |
| TOTAL U.S. | $21,075,294 | $17,301,631 | $3,773,663 | 17.9 | 4.58 |
| AMERICAN SAMOA | 5,329 | 0 | 5,329 | 100.0 | 0.00 |
| GUAM | 0 | 0 | 0 | . | . |
| PUERTO RICO | 200,000 | 100,000 | 100,000 | 50.0 | 1.00 |
| VIRGIN ISLANDS | 0 | 0 | 0 | . | . |
| TRUST TERRITORY | 0 | 0 | 0 | . | . |
| OUTLYING AREAS | $205,329 | $100,000 | $105,329 | 51.3 | 0.95 |
| U.S. & OUTLYING AREAS | $21,280,623 | $17,401,631 | $3,878,992 | 18.2 | 4.49 |

### TABLE F-12.--OUTLAYS FOR ADULT AND POSTSECONDARY EDUCATION UNDER SECTION 110 (INCLUDING CARRYOVER) BY SOURCE OF FUNDS, PERCENT, RATIO, AND BY STATE: UNITED STATES, OUTLYING AREAS 1978-79.

| STATE | OUTLAYS | | | FEDERAL AS PERCENT OF TOTAL | RATIO OF NON-FEDERAL TO FEDERAL |
|---|---|---|---|---|---|
| | TOTAL | NON-FEDERAL | FEDERAL | | |
| ALABAMA | 24,491,993 | 23,021,641 | 1,470,352 | 6.0 | 15.66 |
| ALASKA | 365,364 | 169,202 | 196,162 | 53.7 | 0.86 |
| ARIZONA | 14,832,215 | 13,765,330 | 1,066,885 | 7.2 | 12.90 |
| ARKANSAS | 14,269,002 | 12,587,335 | 1,681,667 | 11.8 | 7.49 |
| CALIFORNIA | 453,544,852 | 433,974,230 | 19,570,622 | 4.3 | 22.17 |
| COLORADO | 26,717,158 | 22,507,428 | 4,209,730 | 15.8 | 5.35 |
| CONNECTICUT | 12,876,244 | 11,822,146 | 1,054,098 | 8.2 | 11.22 |
| DELAWARE | 24,490,075 | 24,292,573 | 197,502 | 0.8 | 123.00 |
| DISTRICT OF COLUMBIA | 857,564 | 634,905 | 222,659 | 26.0 | 2.85 |
| FLORIDA | 123,752,304 | 120,677,904 | 3,074,400 | 2.5 | 39.25 |
| GEORGIA | 40,938,732 | 36,096,142 | 4,842,590 | 11.8 | 7.45 |
| HAWAII | 6,818,713 | 6,300,591 | 518,122 | 7.6 | 12.16 |
| IDAHO | 8,163,984 | 7,530,099 | 633,885 | 7.8 | 11.88 |
| ILLINOIS | 119,919,773 | 112,869,990 | 7,049,783 | 5.9 | 16.01 |
| INDIANA | 38,583,605 | 36,333,254 | 2,250,351 | 5.8 | 16.15 |
| IOWA | 51,779,992 | 47,291,999 | 4,487,993 | 8.7 | 10.54 |
| KANSAS | 20,233,265 | 18,386,762 | 1,846,503 | 9.1 | 9.96 |
| KENTUCKY | 14,420,482 | 12,416,459 | 2,004,023 | 13.9 | 6.20 |
| LOUISIANA | 29,275,956 | 25,335,481 | 3,940,475 | 13.5 | 6.43 |
| MAINE | 9,744,513 | 8,097,644 | 1,646,869 | 16.9 | 4.92 |
| MARYLAND | 38,068,834 | 35,804,422 | 2,264,412 | 5.9 | 15.81 |
| MASSACHUSETTS | 38,377,478 | 36,811,963 | 1,565,515 | 4.1 | 23.51 |
| MICHIGAN | 86,027,686 | 81,559,273 | 4,468,413 | 5.2 | 18.25 |
| MINNESOTA | 64,522,171 | 59,962,000 | 4,560,171 | 7.1 | 13.15 |
| MISSISSIPPI | 14,849,225 | 13,761,305 | 1,087,920 | 7.3 | 12.65 |
| MISSOURI | 17,393,105 | 14,977,107 | 2,415,998 | 13.9 | 6.20 |
| MONTANA | 0 | 0 | 0 | . | . |
| NEBRASKA | 12,195,912 | 11,525,101 | 670,811 | 5.5 | 17.18 |
| NEVADA | 3,266,386 | 3,068,650 | 197,736 | 6.1 | 15.52 |
| NEW HAMPSHIRE | 579,585 | 316,200 | 263,385 | 45.4 | 1.20 |
| NEW JERSEY | 68,692,740 | 66,427,573 | 2,265,167 | 3.3 | 29.33 |
| NEW MEXICO | 8,652,907 | 6,932,619 | 1,720,288 | 19.9 | 4.03 |
| NEW YORK | 89,299,400 | 82,824,160 | 6,475,240 | 7.3 | 12.79 |
| NORTH CAROLINA | 121,369,119 | 119,014,404 | 2,354,715 | 1.9 | 50.54 |
| NORTH DAKOTA | 5,939,963 | 5,215,416 | 724,547 | 12.2 | 7.20 |
| OHIO | 38,325,187 | 32,790,237 | 5,534,950 | 14.4 | 5.92 |
| OKLAHOMA | 42,802,632 | 40,912,759 | 1,889,873 | 4.4 | 21.65 |
| OREGON | 11,622,380 | 10,471,412 | 1,150,968 | 9.9 | 9.10 |
| PENNSYLVANIA | 17,916,557 | 14,535,820 | 3,380,737 | 18.9 | 4.30 |
| RHODE ISLAND | 3,738,640 | 3,411,401 | 327,239 | 8.8 | 10.42 |

## TABLE F-12.--OUTLAYS FOR ADULT AND POSTSECONDARY EDUCATION UNDER SECTION 110 (INCLUDING CARRYOVER) BY SOURCE OF FUNDS, PERCENT, RATIO, AND BY STATE: UNITED STATES, OUTLYING AREAS 1978-79.

| STATE | OUTLAYS TOTAL | OUTLAYS NON-FEDERAL | OUTLAYS FEDERAL | FEDERAL AS PERCENT OF TOTAL | RATIO OF NON-FEDERAL TO FEDERAL |
|---|---|---|---|---|---|
| SOUTH CAROLINA | 61,058,687 | 59,591,951 | 1,466,736 | 2.4 | 40.63 |
| SOUTH DAKOTA | 3,308,249 | 2,584,626 | 723,623 | 21.9 | 3.57 |
| TENNESSEE | 27,046,531 | 24,230,762 | 2,815,769 | 10.4 | 8.61 |
| TEXAS | 65,264,181 | 57,060,821 | 8,203,360 | 12.6 | 6.96 |
| UTAH | 14,226,880 | 12,987,738 | 1,239,142 | 8.7 | 10.48 |
| VERMONT | 520,452 | 291,767 | 228,685 | 43.9 | 1.28 |
| VIRGINIA | 29,549,965 | 27,804,606 | 1,745,359 | 5.9 | 15.93 |
| WASHINGTON | 88,227,871 | 84,284,722 | 3,943,149 | 4.5 | 21.37 |
| WEST VIRGINIA | 2,896,120 | 1,822,184 | 1,073,936 | 37.1 | 1.70 |
| WISCONSIN | 121,256,148 | 116,837,515 | 4,418,633 | 3.6 | 26.44 |
| WYOMING | 1,491,269 | 1,332,929 | 158,340 | 10.6 | 8.42 |
| TOTAL U.S. | $2,134,562,046 | $2,003,262,558 | $131,299,488 | 6.2 | 15.26 |
| AMERICAN SAMOA | 29,406 | 0 | 29,406 | 100.0 | 0.00 |
| GUAM | 8,858 | 0 | 8,858 | 100.0 | 0.00 |
| PUERTO RICO | 4,906,373 | 3,154,605 | 1,751,768 | 35.7 | 1.80 |
| VIRGIN ISLANDS | 0 | 0 | 0 | . | . |
| TRUST TERRITORY | 0 | 0 | 0 | . | . |
| OUTLYING AREAS | $4,944,637 | $3,154,605 | $1,790,032 | 36.2 | 1.76 |
| U.S. & OUTLYING AREAS | $2,139,506,683 | $2,006,417,163 | $133,089,520 | 6.2 | 15.08 |